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Analysing the Panama Papers with Oracle Big Data Spatial and Graph

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Robin Moffatt, Rittman Mead

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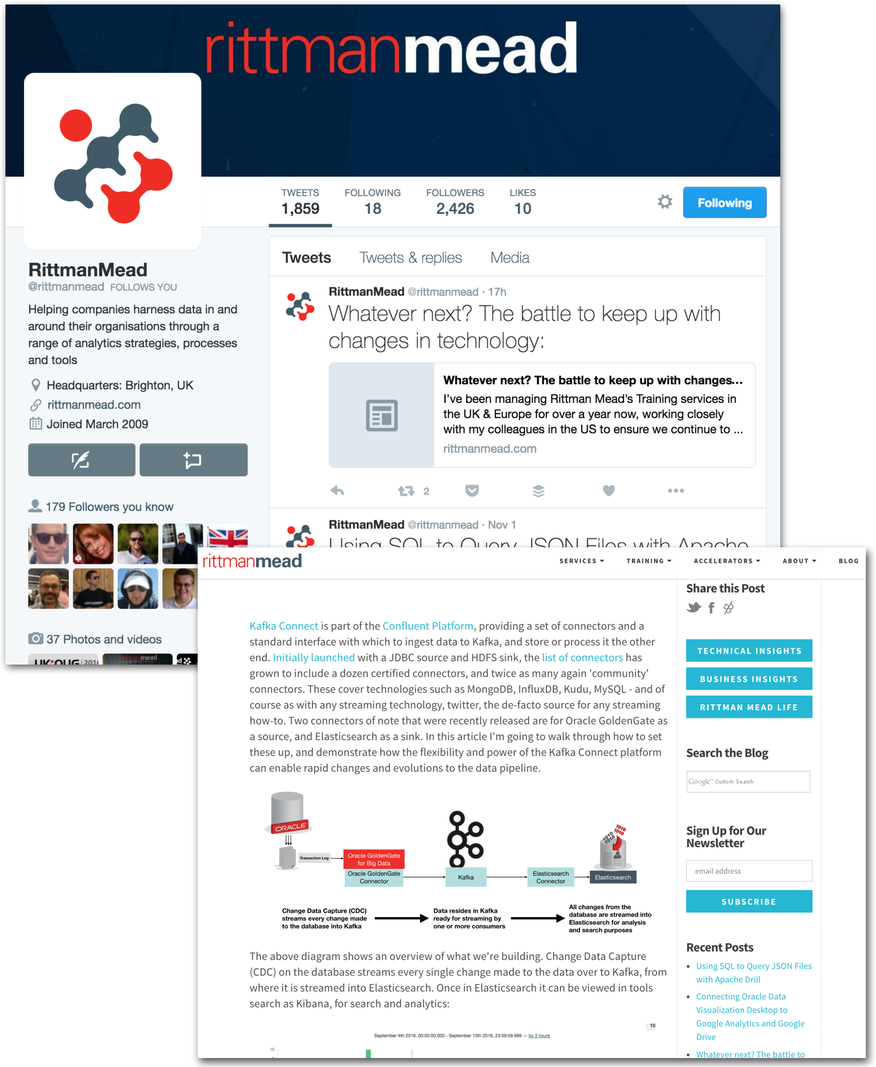
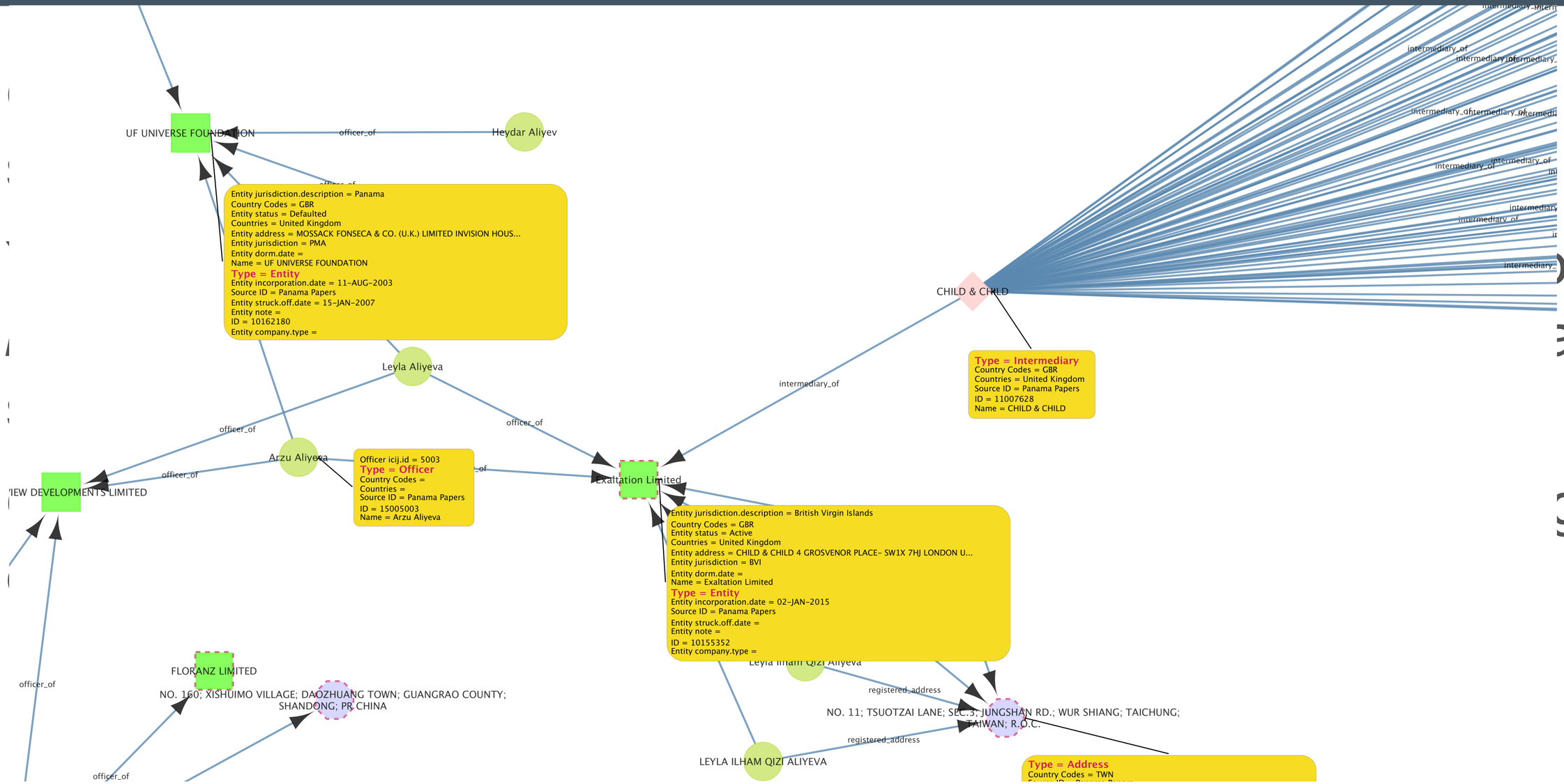
- Head of R&D, Rittman Mead
  - Previously OBIEE/DW developer at large UK retailer
  - Previously SQL Server DBA, Business Objects, DB2, COBOL….
- Oracle ACE
- Frequent blogger : http://ritt.md/rmoff and http://rmoff.net
- Twitter: @rmoff
- IRC: rmoff / #obihackers / freenode

Rittman Mead

- Oracle Gold Partner with offices in the UK and USA
- 70+ staff delivering Oracle BI, DW, Big Data and Advanced Analytics projects
- Significant web presence with the Rittman Mead Blog (http://www.rittmanmead.com)
- Hadoop R&D lab for “dogfooding” solutions developed for customers

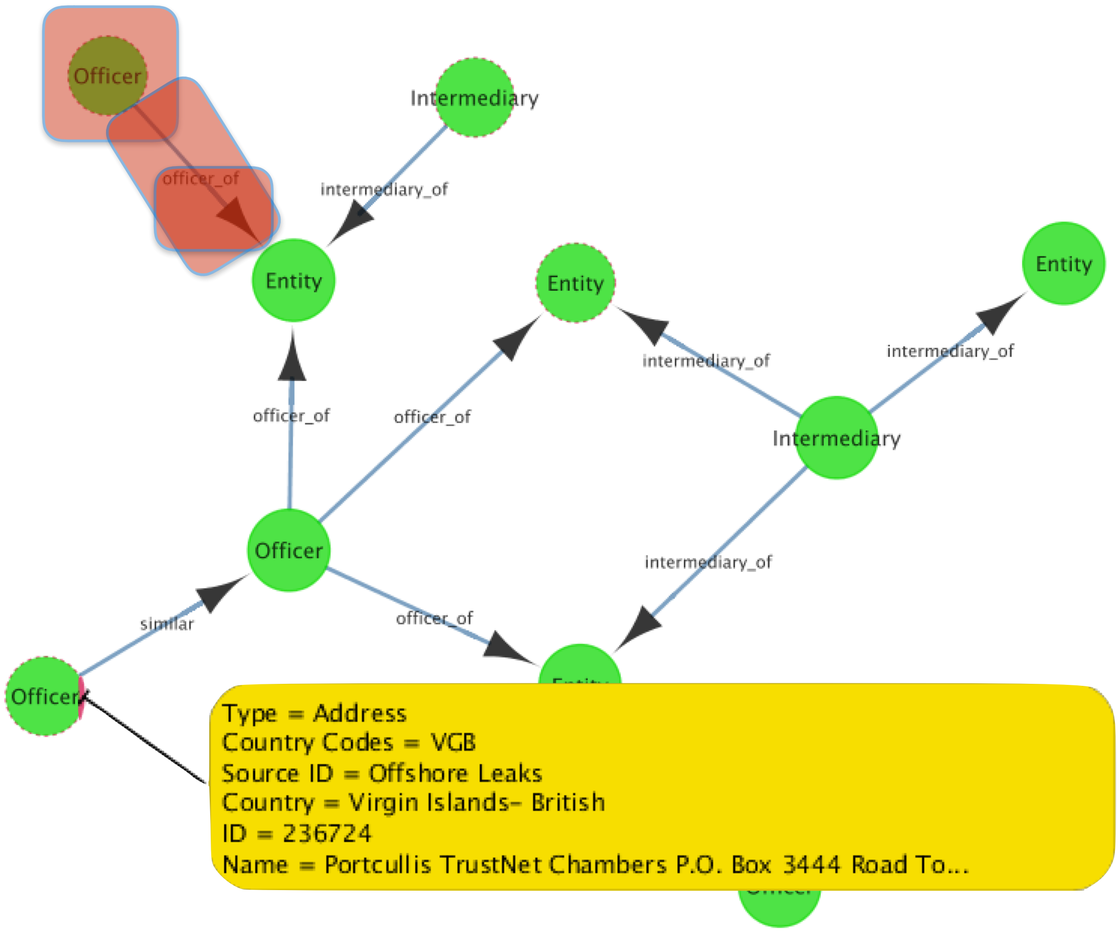


What is a Property Graph and Why is it So Useful?



Property Graph Terminology

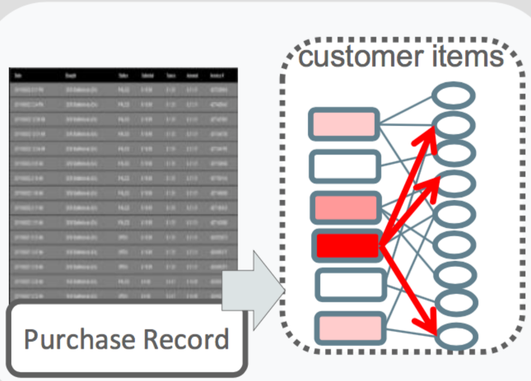
- Node/Vertex
  - The “What”
- Edge
  - The “How” / Relationship
- (Un)Directed
  - The direction of the relationship
- Properties
  - Nodes or Edges



Graph Analysis Uses

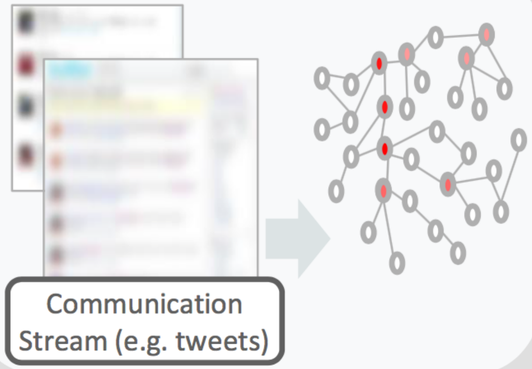
Recommend the most *similar* item purchased by *similar* people

Product Recommendation



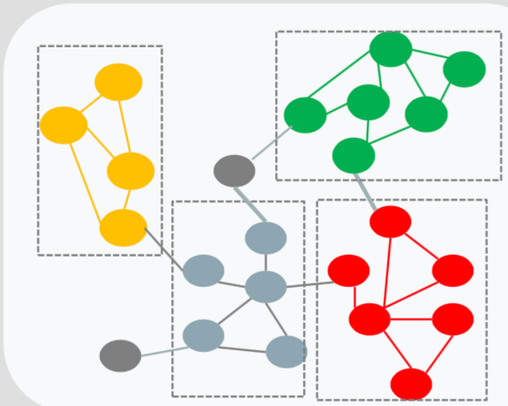
Find out people that are *central* in the given network – e.g. influencer marketing

Influencer Identification



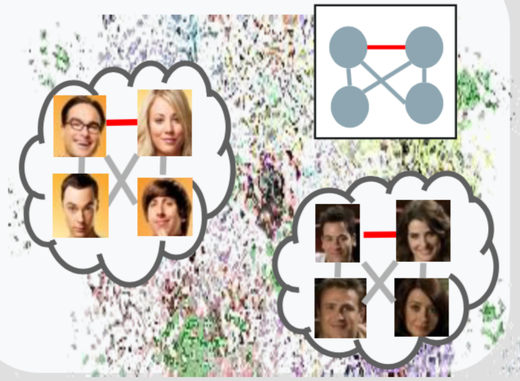
Identify group of people that are close to each other – e.g. target group marketing

Community Detection



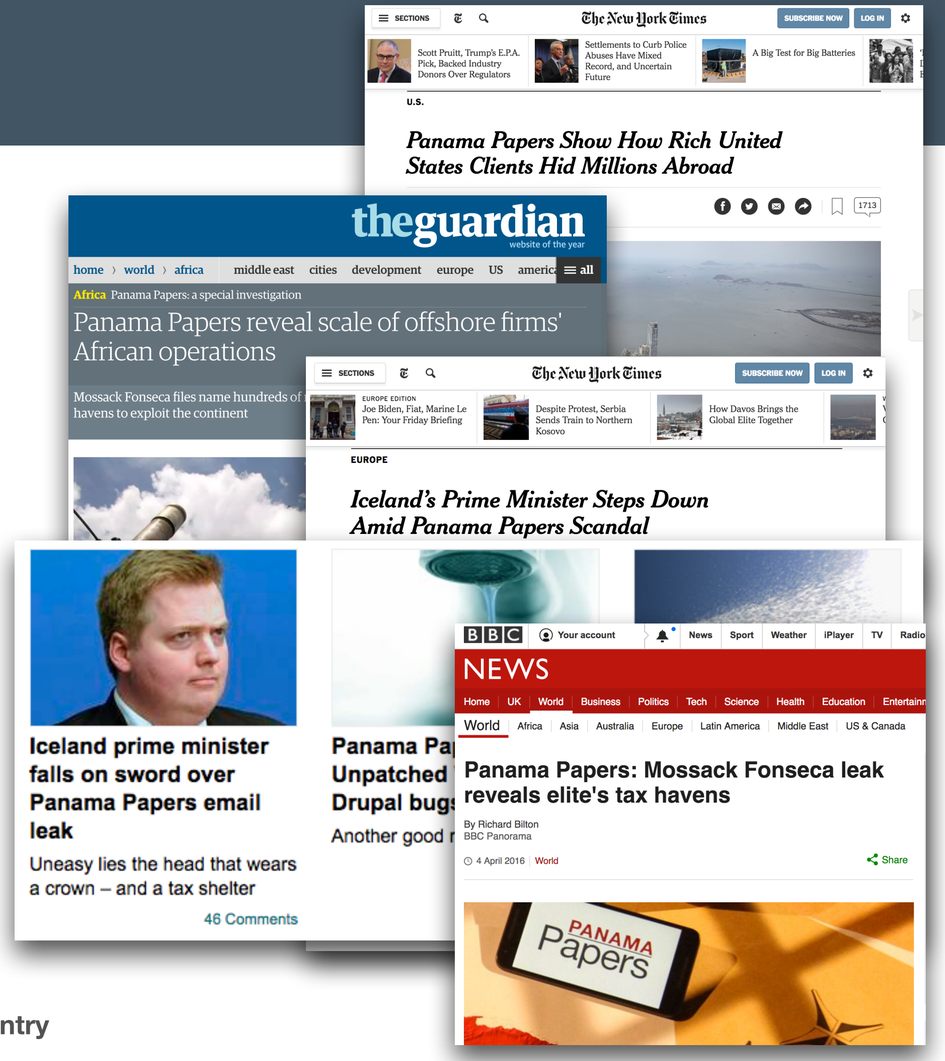
Find out all the sets of entities that match to the given pattern – e.g. fraud detection

Graph Pattern Matching



What are the “Panama Papers”?

- Dataset of 11.5 million documents regarding **offshore entities**, released in 2015
- International Consortium of Investigative Journalists (**ICIJ**) analysed the raw data and made available a curated set of the data
- The New York Times and The Guardian among newspapers that investigated the data in depth



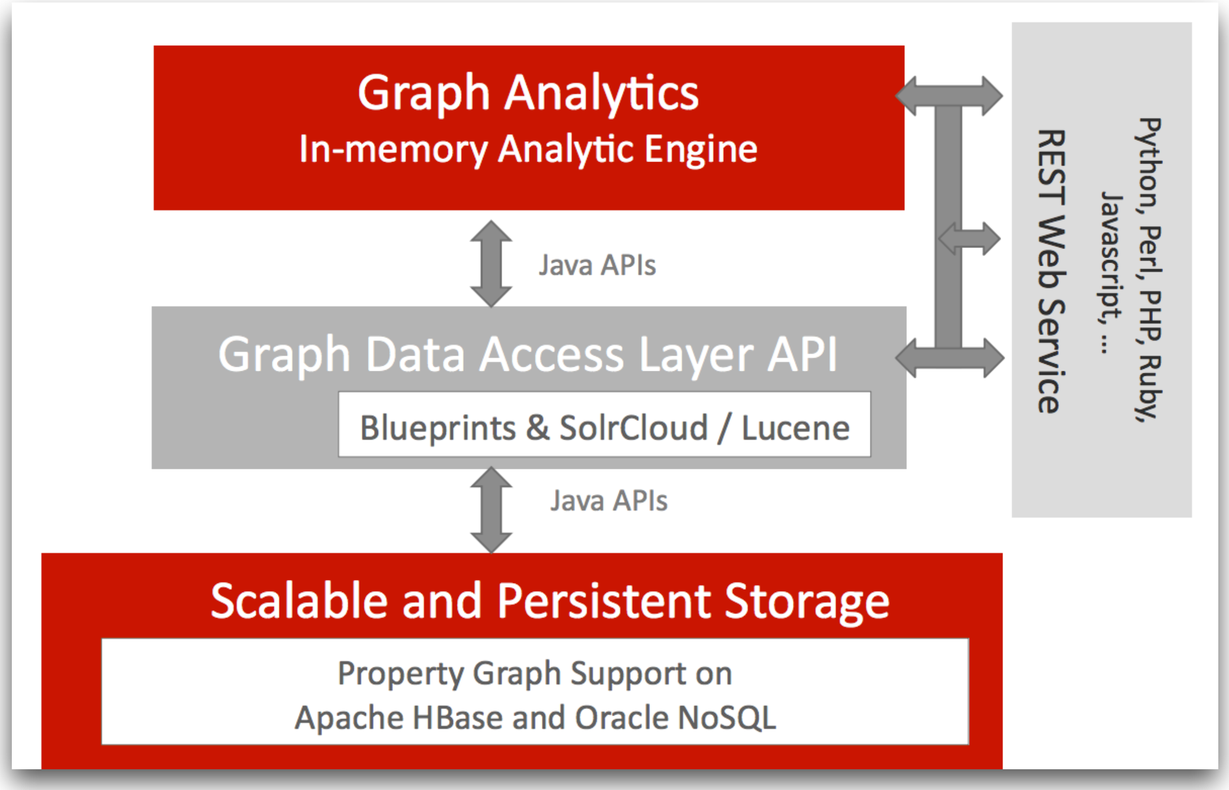
https://www.theguardian.com/news/2016/apr/08/fallout-from-panama-papers-revelations-so-far-country-by-country

There are legitimate uses for offshore companies and trusts.

We do not intend to suggest or imply that any persons, companies or other entities included in the ICIJ Offshore Leaks Database have broken the law or otherwise acted improperly. Many people and entities have the same or similar names.

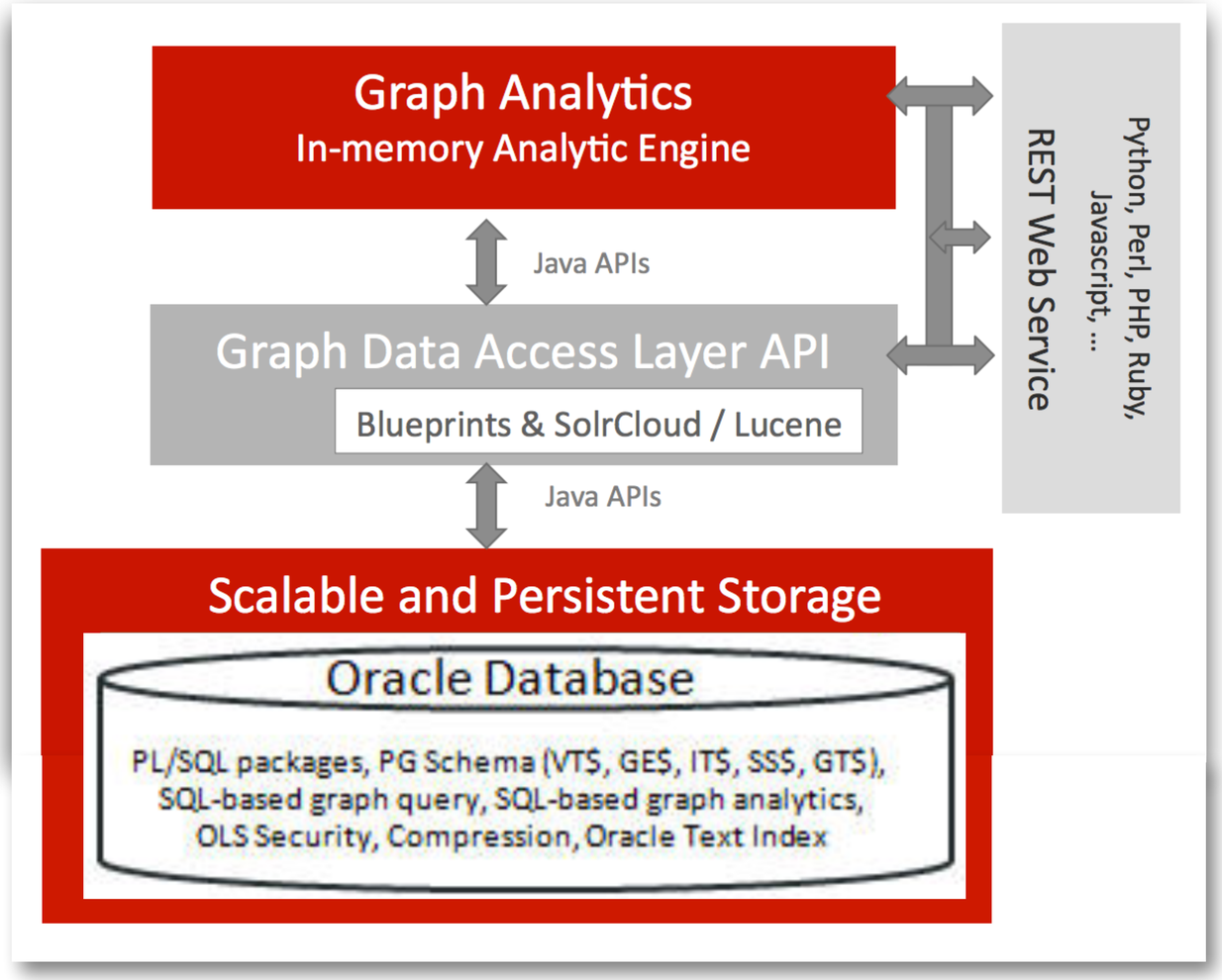
Oracle Big Data Spatial and Graph

- Store the Property Graph definition in HBase or Oracle NoSQL
- API to load/modify data
- In-memory analytic engine (PGX) loads graph for analysis, and provides built-in algorithm implementations
- Also provides RDF and Spatial capabilities



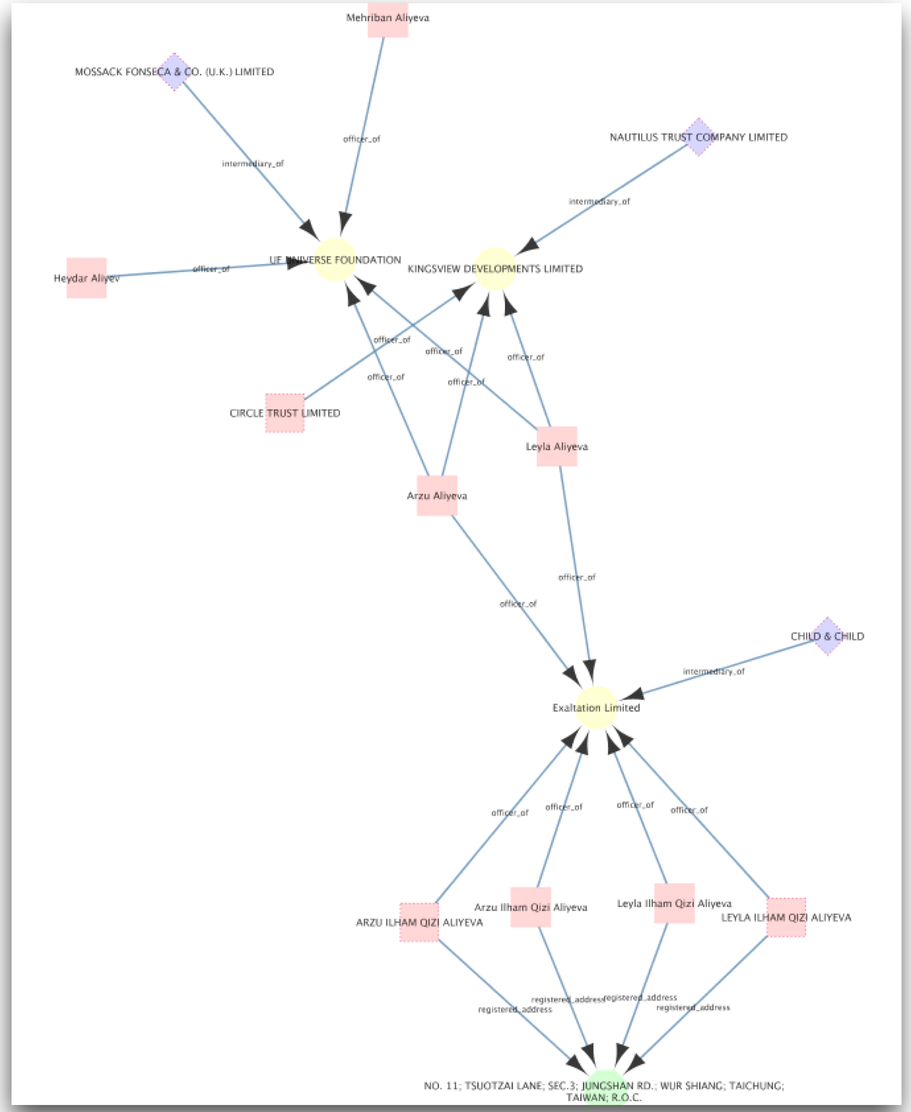
New in Oracle 12.2 - Property Graph support

- Store the Property Graph definition in Oracle Database 12.2 - on-premises or cloud



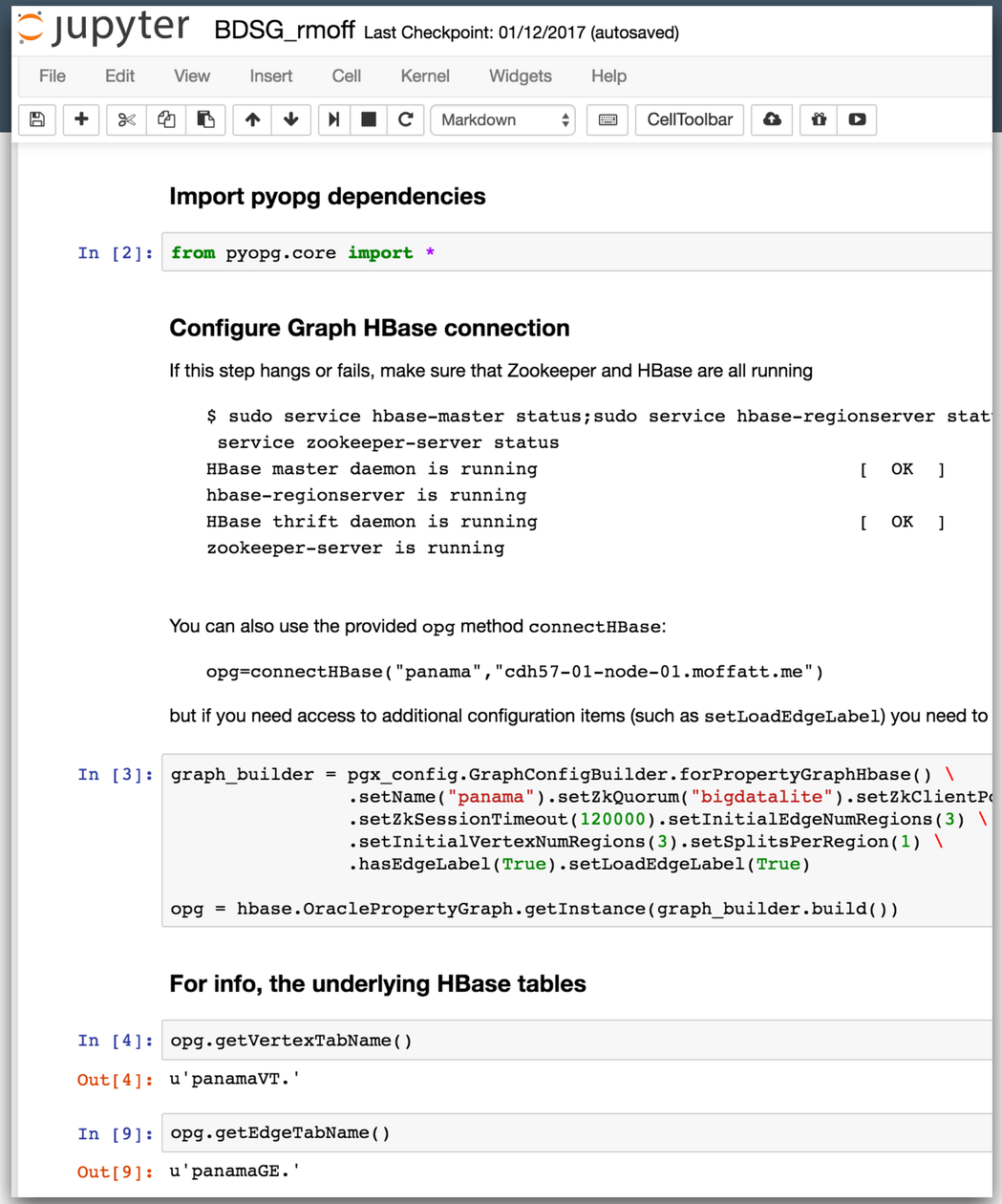
Interacting with Property Graphs

- Apache Tinkerpop's "**Gremlin**"
- **Java APIs** for programatic access
- Nascent **Python** support (pyopg)
- **Spark** library available
- Interactive visualisation and exploration of data with tools like **Cytoscape** (open source), **Tom Sawyer** (paid), etc

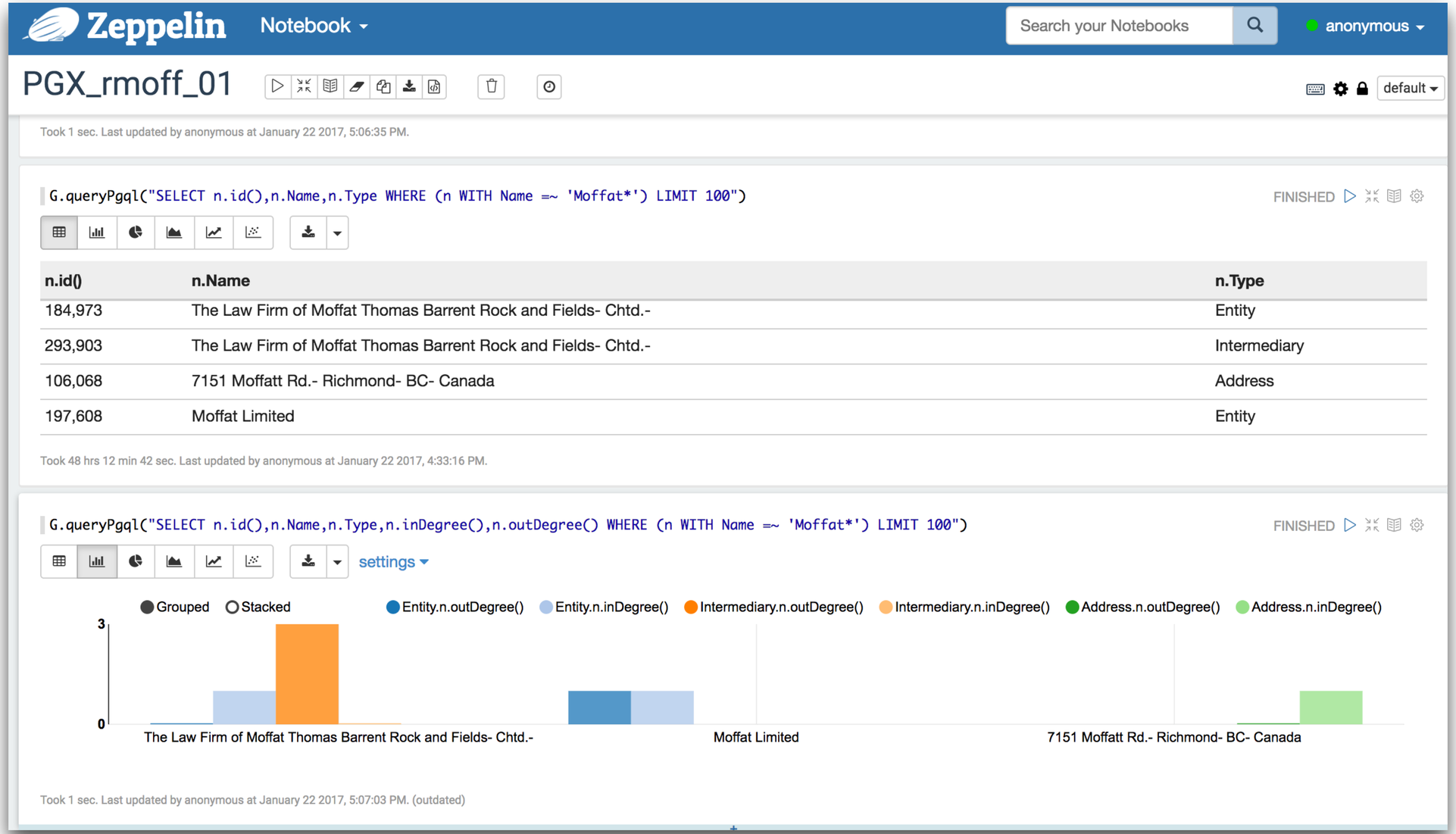


Notebooks

- Interactive code development & execution environment
- Notebooks can be shared for others to run and reproduce findings
- Apache Zeppelin and Jupyter two popular options
- Working with Spatial and Graph:
  - pyopg/Jupyter
  - PGX/Zeppelin



Apache Zeppelin

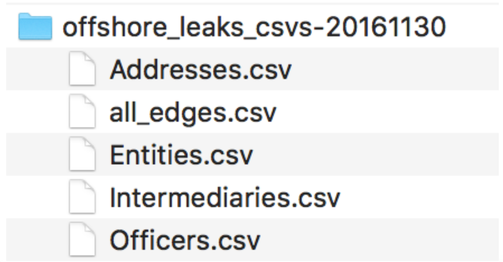


Loading the Data

- Data can be loaded from various formats:
  - GraphML Data Format
  - GraphSON Data Format
  - GML Data Format
  - Oracle Flat File Format
- Source data was CSV, which needed wrangling to fit a supported input format - Oracle Flat File Format was chosen
  - Supports highly-parallised loading in BDSG
  - BDSG now provides CSV->OPE/V Java API

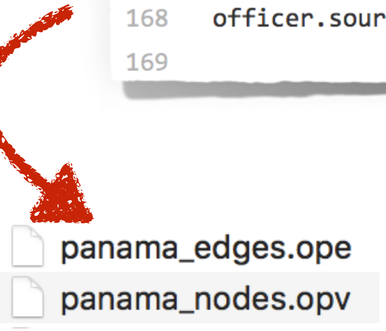
```
rmoff@asgard:offshore_leaks_csvs-20161130> head *.csv
==> Addresses.csv <==
address,icij_id,valid_until,country_codes,countries,node_id,sourc
-       27 ROSEWOOD DRIVE #16-19 SINGAPORE 737920,6991059DFFB057D
"""Almaly Village"" v.5, Almaty Kazakhstan",C65A269424AA1A8BBAC41
"""Cantonia"" South Road St Georges Hill Weybridge, Surrey",240EE
"""CAY-OS"" NEW ROAD; ST.SAMPSON; GUERNSEY; CHANNEL ISLANDS",340C
"""Chirag"" Plot No 652; Mwamba Road; Kizingo; Mombasa; 80100; Ke
"""La Diana""; 16 rue Del Respiro; MC 98000 Monaco.",42173A0C9E24
"""Les hauts de St Jean""; 17 avenue Perdtemts; Canton de Vaud; C
"""Les Tattes""; Bursinel; Vaud; Switzerland",AEF1EEA809FC3C6058D
"""Quai Kennedy"" 1 boulevard Louis II Monaco MC98000",6855E04627

==> Entities.csv <==
name,original_name,former_name,jurisdiction,jurisdiction_descript
ode_id,sourceID
"TIANSHENG INDUSTRY AND TRADING CO., LTD.","TIANSHENG INDUSTRY AN
G,1001256,23-MAR-2006,18-FEB-2013,15-FEB-2013,,Defaulted,Mossack
"NINGBO SUNRISE ENTERPRISES UNITED CO., LTD.","NINGBO SUNRISE ENT
NG KONG,1001263,27-MAR-2006,27-FEB-2014,15-FEB-2014,,Defaulted,Mo
"HOTFOCUS CO., LTD.","HOTFOCUS CO., LTD.",,SAM,Samoa,,ORION HOUSE
2,,Defaulted,Mossack Fonseca,24138,HKG,Hong Kong,,The Panama Pape
"SKY-BLUE GIFTS & TOYS CO., LTD.","SKY-BLUE GIFTS & TOYS CO., LTD
006,16-FEB-2009,15-FEB-2009,,Defaulted,Mossack Fonseca,24012,HKG,
FORTUNEMAKER INVESTMENTS CORPORATION,FORTUNEMAKER INVESTMENTS COR
a,R25638,HKG,Hong Kong,,The Panama Papers data is current through
8808 HOLDING LIMITED,8808 HOLDING LIMITED (EX-DIAMOND LIMITED),DI
KG,Hong Kong,,The Panama Papers data is current through 2015,1000
KENT DEVELOPMENT LIMITED,KENT DEVELOPMENT LIMITED,,SAM,Samoa,,ORI
-FEB-2006,,Defaulted,Mossack Fonseca,15757,HKG,Hong Kong,,The Pan
BONUS TRADE LIMITED,BONUS TRADE LIMITED,,SAM,Samoa,,ORION HOUSE S
,Defaulted,Mossack Fonseca,15910,HKG,Hong Kong,,The Panama Papers
AMARANDAN LTD.,AMARANDAN LTD.,,SAM,Samoa,,ORION HOUSE SERVICES (H
,Mossack Fonseca,15759,HKG,Hong Kong,,The Panama Papers data is c
```

Data Wrangling with R



address	icij_id	valid_until	country_codes	countries
Apt.92, Minskaya Str, 1G,Bldg1, Moscow Russia		The Offshore Leaks data is current through 2010	RUS	Russian Federation

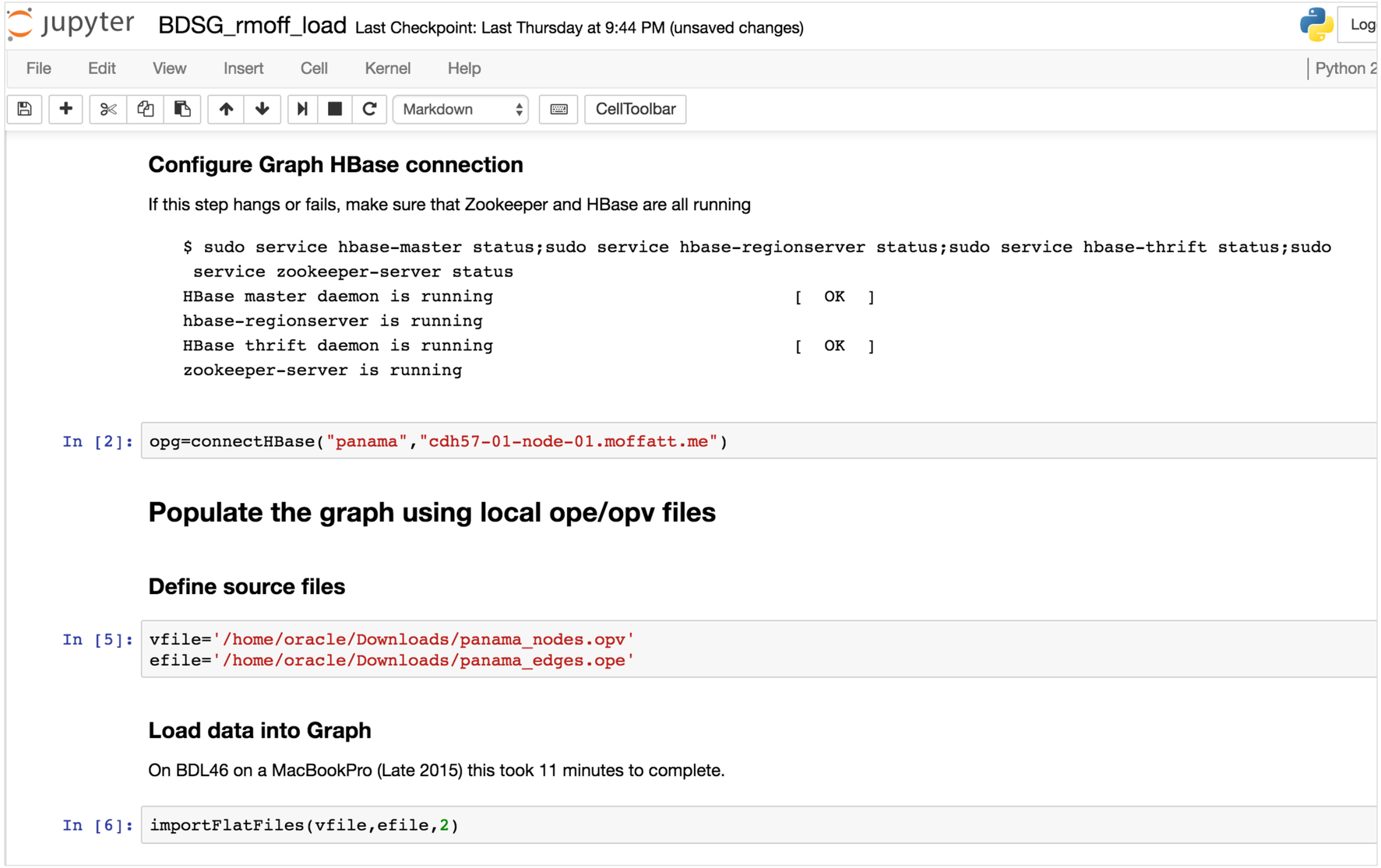
```
162  ## Create a dataframe with each set of data
163  officer.type <-  officers %>%  select(node.id) %>%  mutate(key='Type') %>%  mutate(datatype=1) %>%  mutate(strval = 'Officer')
164  officer.name  <-  officers %>%  select(node.id) %>%  mutate(key='Name')      %>%  mutate(datatype=1) %>%  bind_cols(select(officers,c(name)
165  officer.icij.id  <-  officers %>%  select(node.id) %>%  mutate(key='Officer icij.id')      %>%  mutate(datatype=1) %>%  bind_cols(select(of
166  officer.country.codes  <-  officers %>%  select(node.id) %>%  mutate(key='Country Codes')      %>%  mutate(datatype=1) %>%  bind_cols(selec
167  officer.countries  <-  officers %>%  select(node.id) %>%  mutate(key='Countries')      %>%  mutate(datatype=1) %>%  bind_cols(select(office
168  officer.sourceid  <-  officers %>%  select(node.id) %>%  mutate(key='Source ID')      %>%  mutate(datatype=1) %>%  bind_cols(select(officer
169
```



Node ID	Key Name	Data Type (1 String, 2 Int, 3 Float, etc)	String Value	Numer
67423	Type	1	Address	
67423	Name	1	Apt.92, Minskaya Str, 1G,Bldg1, Moscow Russia	
67423	Country Codes	1	RUS	
67423	Country	1	Russian Federation	
67423	Source ID	1	Offshore Leaks	
67423	Valid Until	1	The Offshore Leaks data is current through 2010	

panama_opv_ope.R https://gist.github.com/rmoff/17025830c81e60d6446e34a37273f705

Apache HBase - importFlatFiles()



Loading Property Graph in Oracle 12.2

- Same process as HBase, but different Java class
- Make sure DB is configured **max_string_size=extended**

```
cfg = GraphConfigBuilder.\
        forPropertyGraphRdbms().\
        setJdbcUrl("jdbc:oracle:thin:@127.0.0.1:1521/ORCL").\
        setUsername("scott").\
        setPassword("oracle").\
        setName("panama").\
        setMaxNumConnections(8).\
        build();
```

Property Graph in Oracle 12.2

- Property Graph data is stored in a set of tables,

```
SQL> select table_name from user_tables;

TABLE_NAME
------------------------------

PANAMAGE$
PANAMAGT$
PANAMAVT$
PANAMAIT$
PANAMASS$
```

Inspecting the Property Graph

Search Vertices

Find all vertices located in the Virgin Islands

In [9]:
```
v=searchVertexIndex("Country","Virgin Islands- British")
```

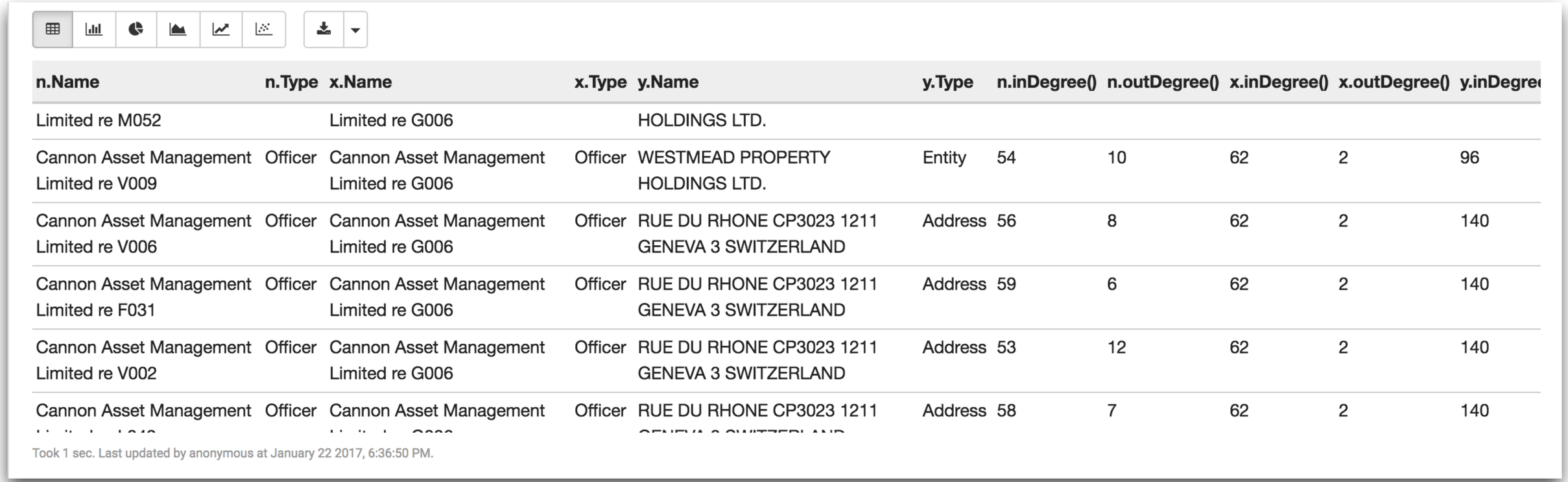
Print the first two

In [10]:
```
c=0
for i in v:
    for key in i.getPropertyKeys():
        print key,i.getProperty(key)
    print '--'

    c=c+1
    if c>=2:
        break
```

```
Type Address
Country Codes VGB
Source ID Panama Papers
Country Virgin Islands- British
ID 14025155
Name ABBOTT BUILDING; ROAD TOWN; TORTOLA; BVI.
--
Type Address
Country Codes VGB
Source ID Offshore Leaks
Country Virgin Islands- British
ID 246064
Name 1st Floor Wickham's Cay PO Box 901 Road Town- Tortola
--
```

Analysing the Property Graph - Zeppelin

- Native rendering support for resultset objects



n.Name	n.Type	x.Name	x.Type	y.Name	y.Type	n.inDegree()	n.outDegree()	x.inDegree()	x.outDegree()	y.inDegree
Limited re M052		Limited re G006		HOLDINGS LTD.						
Cannon Asset Management Limited re V009	Officer	Cannon Asset Management Limited re G006	Officer	WESTMEAD PROPERTY HOLDINGS LTD.	Entity	54	10	62	2	96
Cannon Asset Management Limited re V006	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	56	8	62	2	140
Cannon Asset Management Limited re F031	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	59	6	62	2	140
Cannon Asset Management Limited re V002	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	53	12	62	2	140
Cannon Asset Management	Officer	Cannon Asset Management	Officer	RUE DU RHONE CP3023 1211	Address	58	7	62	2	140

Took 1 sec. Last updated by anonymous at January 22 2017, 6:36:50 PM.

Analysing the Data - Property Graph Query Language (PGQL)

- SQL-like language for querying property graph
- Same SELECT .. WHERE clause pattern but with syntax for expressing graph relationships
- http://pgql-lang.org/spec/1.0/

```
SELECT m.name, o.name
WHERE (n:Person WITH name = 'John') -[e1:friendOf]-> (m:Person) <-[e2:belongs_to]- (o:Car)
```

Zeppelin Notebook ▾ Search your Notebooks anonymous ▾

PGX_r

```
G.queryPgql("SELECT n.id(),n.Type,n.Country,n.Name WHERE (n) LIMIT 5")
```

Load the

```
%pgx

// The config file specified here (`~/Google\ Drive/graph/panama_bdl46.json`) should match the syntax shown above

G = session.readGraphWithProperties('data/panama_bdl46.json')
```

```
==> PgxGraph[name=panama,N=838295,E=1265690,created=1484929223995]
```

Took 1 min 15 sec. Last updated by anonymous at January 20 2017, 4:20:25 PM.

Run Simple PGQL query

FINISHED

```
G.queryPgql("SELECT n.id(),n.Type,n.Country,n.Name WHERE (n) LIMIT 5")
```

n.id()	n.Type	n.Country	n.Name
2,618	Officer		Chan Wai Keung
14,012,326	Address	Hong Kong	2nd Floor; Johnson Industrial Building; 340 knonn Tong Road; Knonn Tong; Konloon; Hong Kong
10,056,574	Entity		SF FLOOR 10 OFFICE 14 CORPORATION
14,078,715	Address	United Kingdom	Stourton the glade Kingswood Surrey KT20 6LL
94,451	Officer		Qi Zhen Gang

Took 1 sec. Last updated by anonymous at January 22 2017, 5:06:35 PM.

Powerful Predicate Support

Which nodes with more than 50 inbound links are connected to nodes also with >50 inbound links, also connected to nodes also with >50 inbound links?

FINISHED

```
G.queryPgql("SELECT n.Name,n.Type,\
             x.Name,x.Type,\
             y.Name,y.Type,\
             n.inDegree(),n.outDegree(),\
             x.inDegree(),x.outDegree(),\
             y.inDegree(),y.outDegree(),\
             n.id(),x.id(),y.id() \
             WHERE  (n) -> (x) -> (y), \
             y.inDegree()>50, \
             x.inDegree()>50, \
             n.inDegree()>50 \
             ORDER BY x.inDegree() desc \
             ")
```

```
WHERE  (n) -> (x) -> (y), \
y.inDegree()>50, \
x.inDegree()>50, \
n.inDegree()>50 \
```

n.Name	n.Type	x.Name	x.Type	y.Name	y.Type	n.inDegree()	n.outDegree()	x.inDegree()	x.outDegree()	y.inDegree
Limited re M052		Limited re G006		HOLDINGS LTD.						
Cannon Asset Management Limited re V009	Officer	Cannon Asset Management Limited re G006	Officer	WESTMEAD PROPERTY HOLDINGS LTD.	Entity	54	10	62	2	96
Cannon Asset Management Limited re V006	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	56	8	62	2	140
Cannon Asset Management Limited re F031	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	59	6	62	2	140
Cannon Asset Management Limited re V002	Officer	Cannon Asset Management Limited re G006	Officer	RUE DU RHONE CP3023 1211 GENEVA 3 SWITZERLAND	Address	53	12	62	2	140
Cannon Asset Management	Officer	Cannon Asset Management	Officer	RUE DU RHONE CP3023 1211	Address	58	7	62	2	140

PGX Built-In Algorithms

Run the PageRank algorithm

FINISHED

```
analyst.pagerank(G)
```

```
==> VertexProperty[name=pagerank,type=double,graph=panama]
```

Took 1 sec. Last updated by anonymous at January 22 2017, 6:52:38 PM.

Show the algorithm results via PGQL

FINISHED

```
G.queryPgql("SELECT n.id(),n.pagerank,n.inDegree(),n.Type,n.Country,n.Name  WHERE (n) ORDER BY n.pagerank  DESC ")
```

n.id()	n.pagerank	n.inDegree()	n.Type	n.Country	n.Name
236,724	0.01057	37,338	Address	Virgin Islands- British	Portcullis TrustNet Chambers P.O. Box 3444 Road Town- Tortola British Virgin Islands (w.e.f 9 December 2005)
288,469	0.00108	5,699	Address	United Kingdom	Unitrust Corporate Services Ltd. John Humphries House- Room 304 4-10 Stockwell Street- Greenwich London SE10
264,051	0.0008	2,671	Address	Hong Kong	Company Kit Limited Unit A- 6/F Shun On Comm Bldg. 112-114 Des Voeux Road C.- Hong Kong SAR
285,729	0.00067	3,896	Address	Hong Kong	Sealight Incorporations Limited Room 1201- Connaught Commercial Building 185 Wanchai Road Wanchai- Hong Kor
237,076	0.0006	1,858	Address	Cayman Islands	David Chong & Co. Office B1- 7/F. Loyong Court 212-220 Lockhart Road Wanchai Hong Kong CAYMAN ISLANDS
237,583	0.00048	2,096	Address	Russian Federation	G.S.L. Law & Consulting SHIPPING ADDRESS: Russian Federation Billing/Invoice address ONLY: 29A Anna Komnini
279,944	0.00045	2,194	Address	Hong Kong	Panocean Secretarial Services Limited Room 1708 Kai Tak Commercial Building 317-321 Des Voeux Road C Hong K
271,169	0.00032	1,721	Address	Panama	Kuzniecky & Co. Banco General Building- 21st Floor Aquilino de la Guardia Street Panama City Republic of Panama I
236,832	0.00031	1,612	Address	Ireland	c/o International Offshore Services Group 42 Chelmsford Road Dublin 6 Ireland

Took 1 sec. Last updated by anonymous at January 22 2017, 6:53:26 PM.

Analysing the Property Graph - SQL

5.44 OPG_APIS.PR

Format

```
OPG_APIS.PR(
     edge_tab_name   IN VARCHAR2,
     d               IN NUMBER DEFAULT 0.85,
     num_iterations  IN NUMBER DEFAULT 10,
     convergence     IN NUMBER DEFAULT 0.1,
     dop             IN INTEGER DEFAULT 4,
     wt_node_pr      IN OUT VARCHAR2,
     wt_node_nextpr  IN OUT VARCHAR2,
     wt_edge_tab_deg IN OUT VARCHAR2,
     wt_delta        IN OUT VARCHAR2,
     tablespace      IN VARCHAR2 DEFAULT NULL,
     options         IN VARCHAR2 DEFAULT NULL,
     num_vertices    OUT NUMBER);
```

Description

Prepares for page rank calculations.

Parameters

edge_tab_name

Name of the property graph edge table.

d

192.168.56.101 scott

Worksheet | Query Builder

```
1  with OfficerPR as
2          (select V.vid, pr.pr
3            from panamaPR pr
4                 inner join PANAMAVT$ V
5                 on pr.NODE = v.vid
6           where v.K = 'Type' and v.V = 'Officer'
7        order by PR desc
8        fetch first 5 rows only)
9  select pr2.pr,v2.k,v2.v
10 from OfficerPR pr2
11      inner join panamaVT$ v2
12      on pr2.vid = v2.vid
13 where v2.k in ('Name','Countries');
```

Query Result

SQL | All Rows Fetched: 10 in 35.297 seconds

	PR	K	V
1	1.999381...	Countries	Guernsey
2	1.999381...	Name	Cannon Asset Management Limited re G006
3	1.567223...	Countries	Gibraltar
4	1.567223...	Name	NORTH ATLANTIC TRUST COMPANY LTD. AS TRUSTEE THE DAWN TRUST
5	1.557548...	Countries	Guernsey
6	1.557548...	Name	Cannon Asset Management Limited re J006
7	1.469773...	Countries	Portugal
8	1.469773...	Name	B-49-MARQUIS-CONSULTADORIA E SERVICOS (SOCIEDADE UNIPESSOAL) LDA
9	1.398468...	Countries	Cyprus
10	1.398468...	Name	SCIVIAS TRUST MANAGEMENT LTD

SQL is OK - but PGQL is More Elegant and Powerful

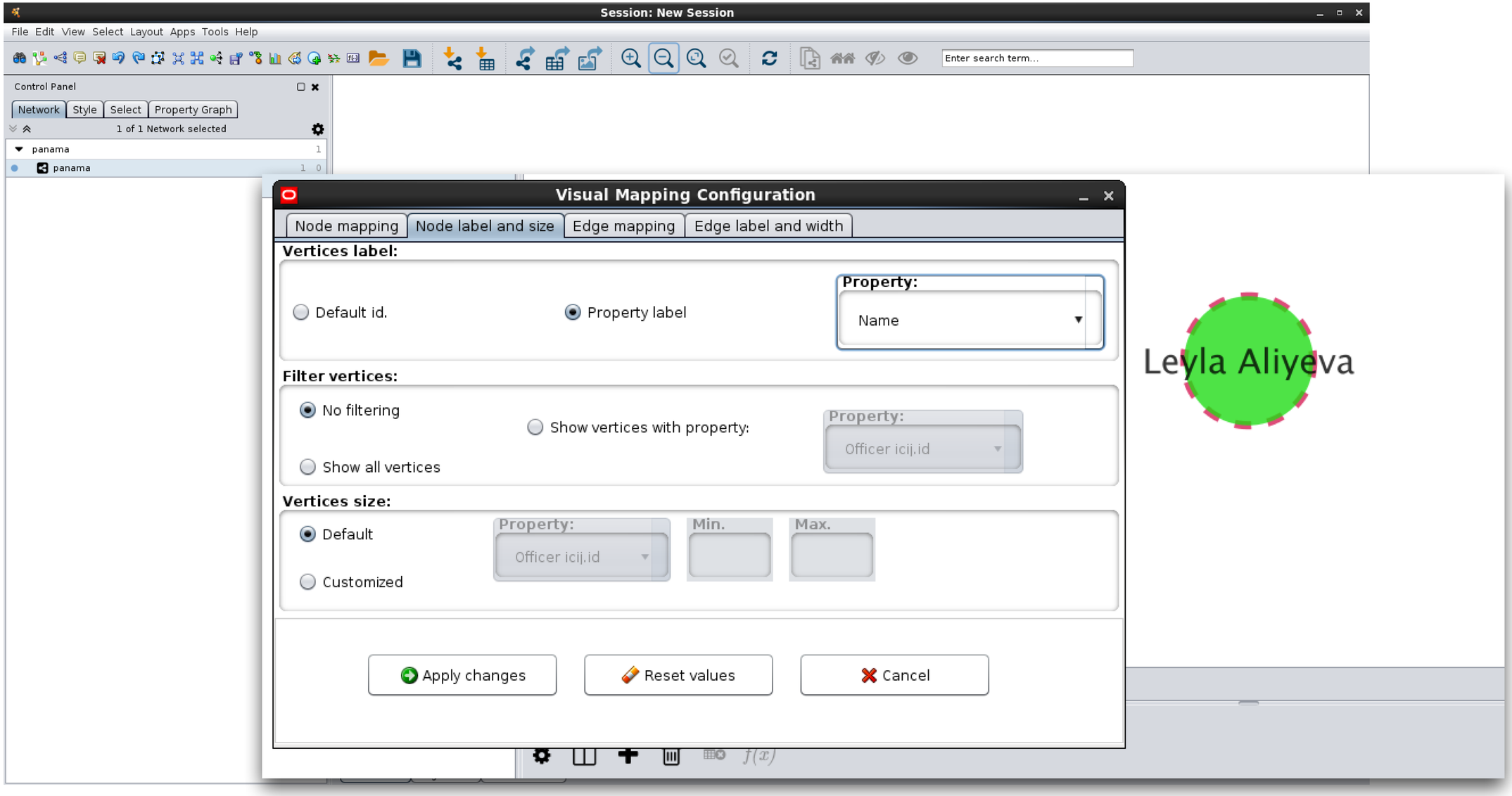
SQL

```
with OfficerPR as
        (select V.vid, pr.pr
          from panamaPR pr
               inner join PANAMAVT$ V
               on pr.NODE = v.vid
         where v.K = 'Type'
           and v.V = 'Officer'
       order by PR desc
       fetch first 5 rows only)
select pr2.pr,v2.k,v2.v
from OfficerPR pr2
     inner join panamaVT$ v2
     on pr2.vid = v2.vid
where v2.k in ('Name','Countries');
```

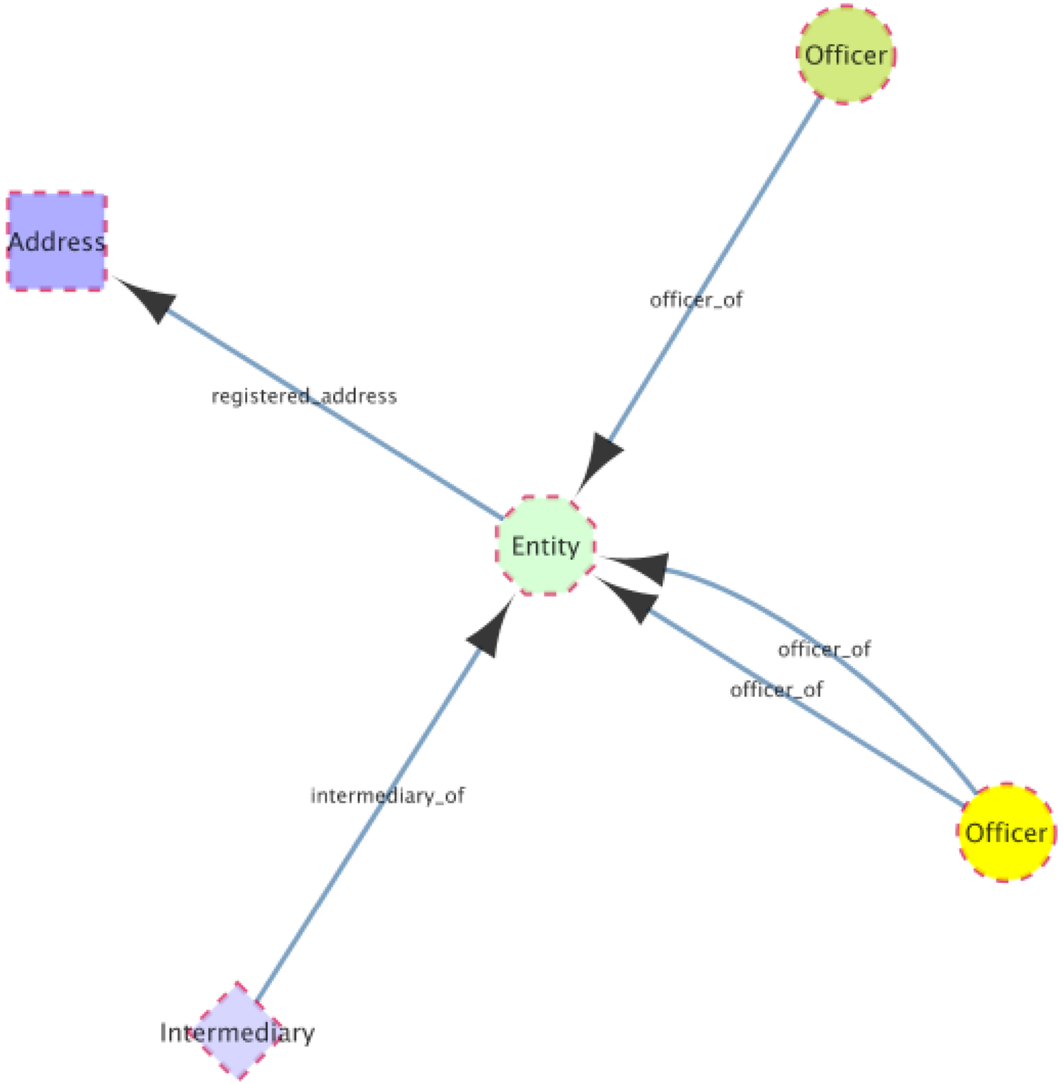
PGQL

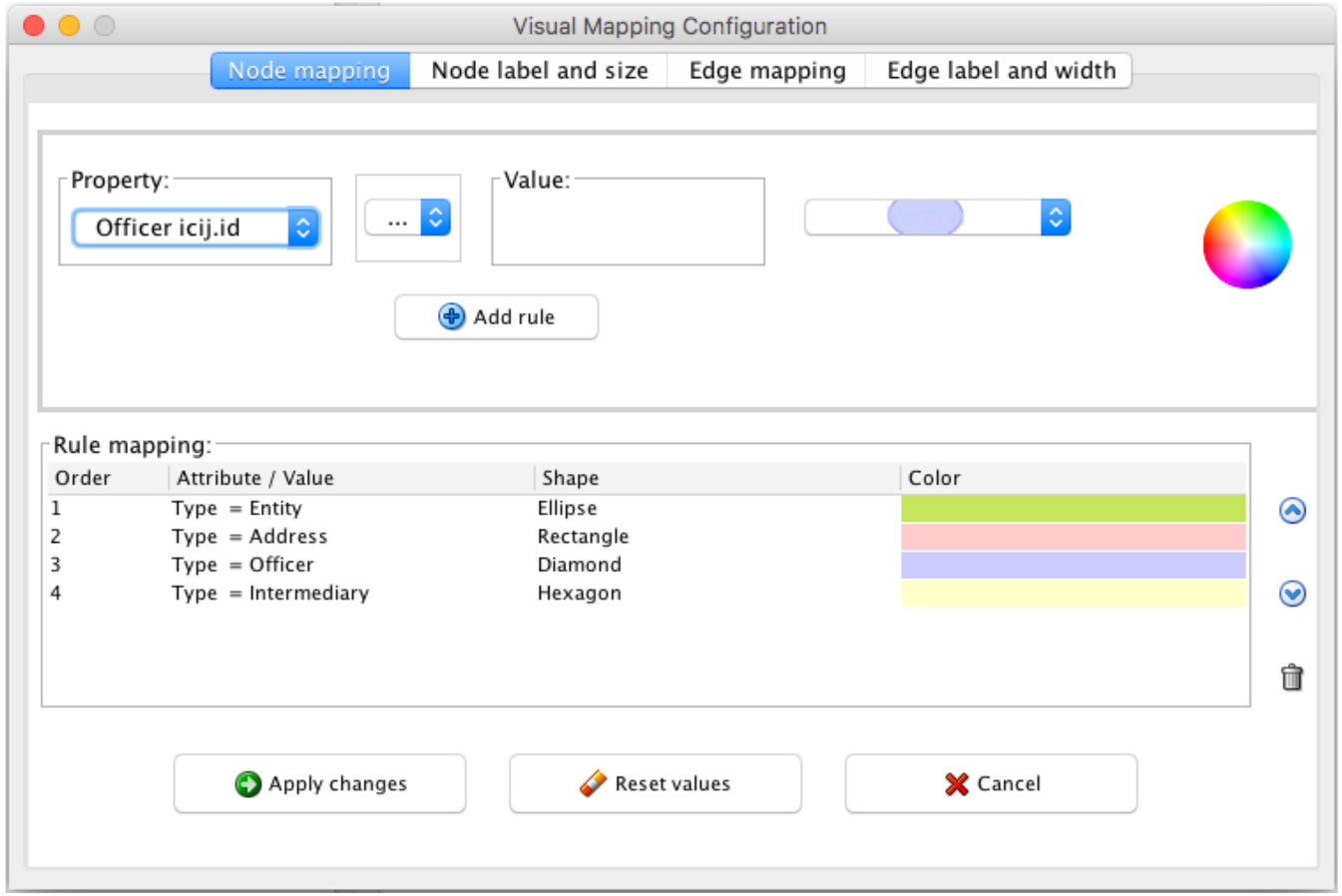
```
select n.pr, n.name, n.countries
WHERE (n WITH Type =~ 'Officer')
ORDER BY n.pr limit 5
```

Exploring the Property Graph with Cytoscape

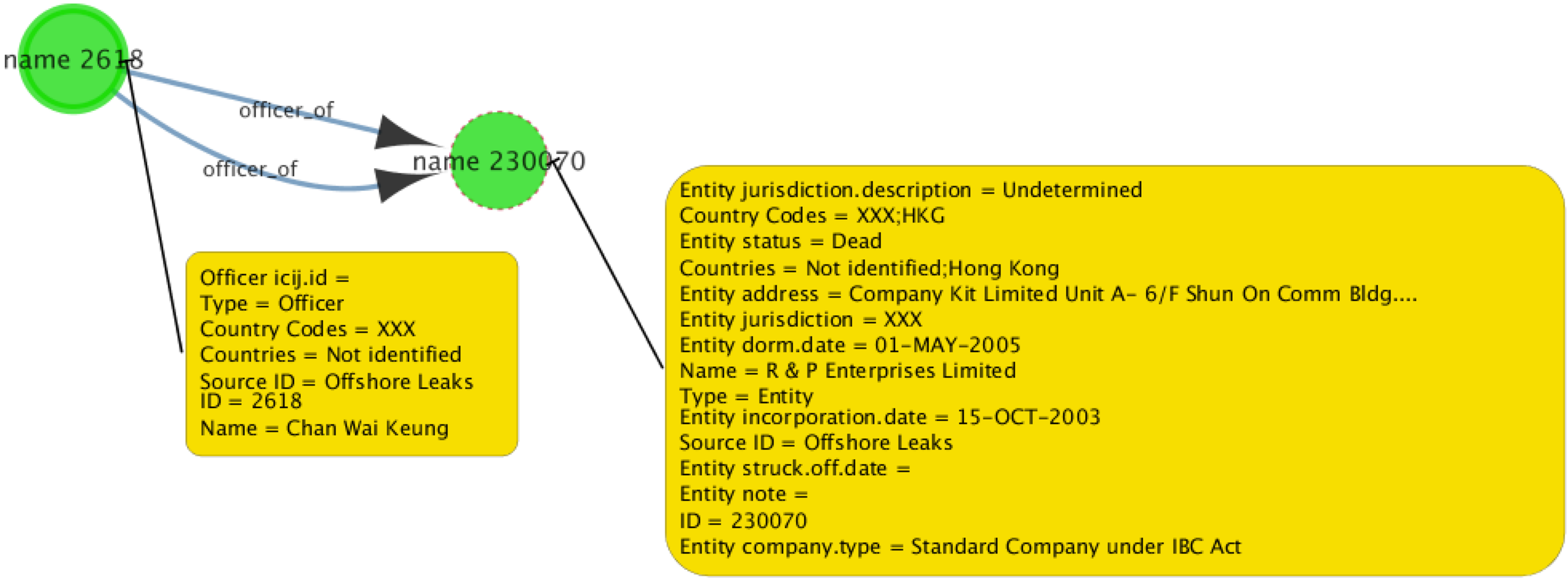


Exploring the Property Graph with Cytoscape



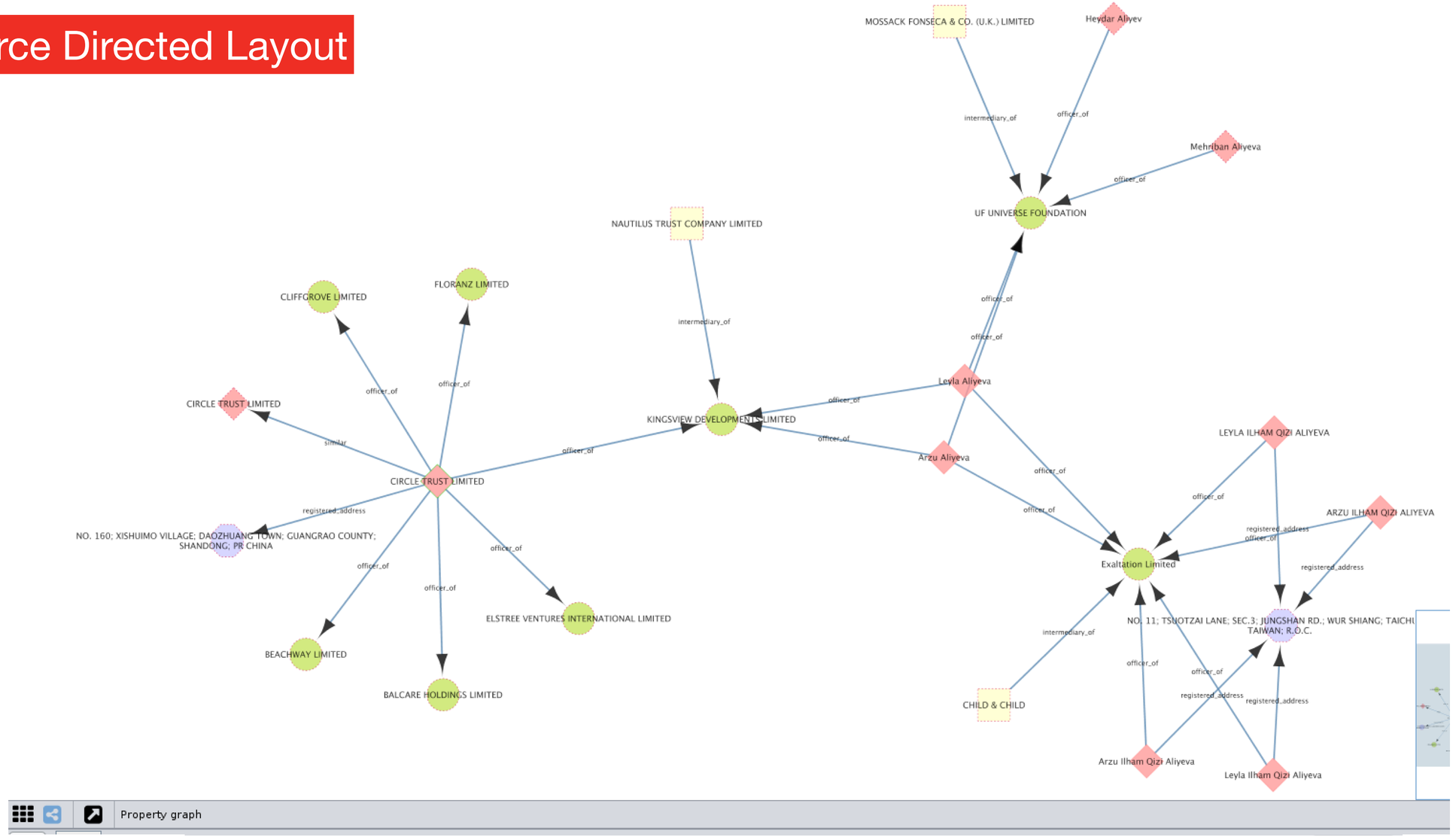


Exploring the Property Graph with Cytoscape

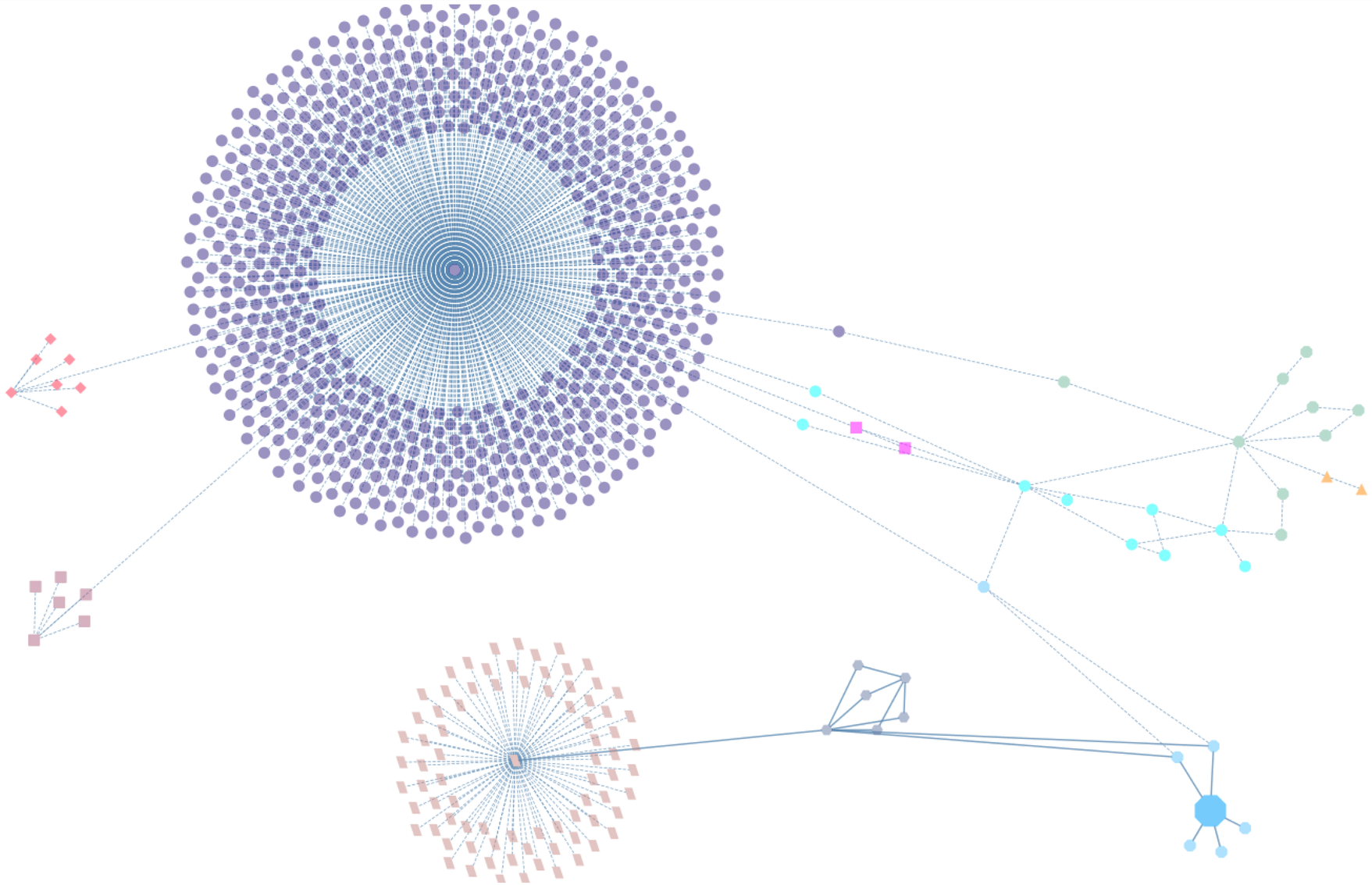


Layout Algorithms

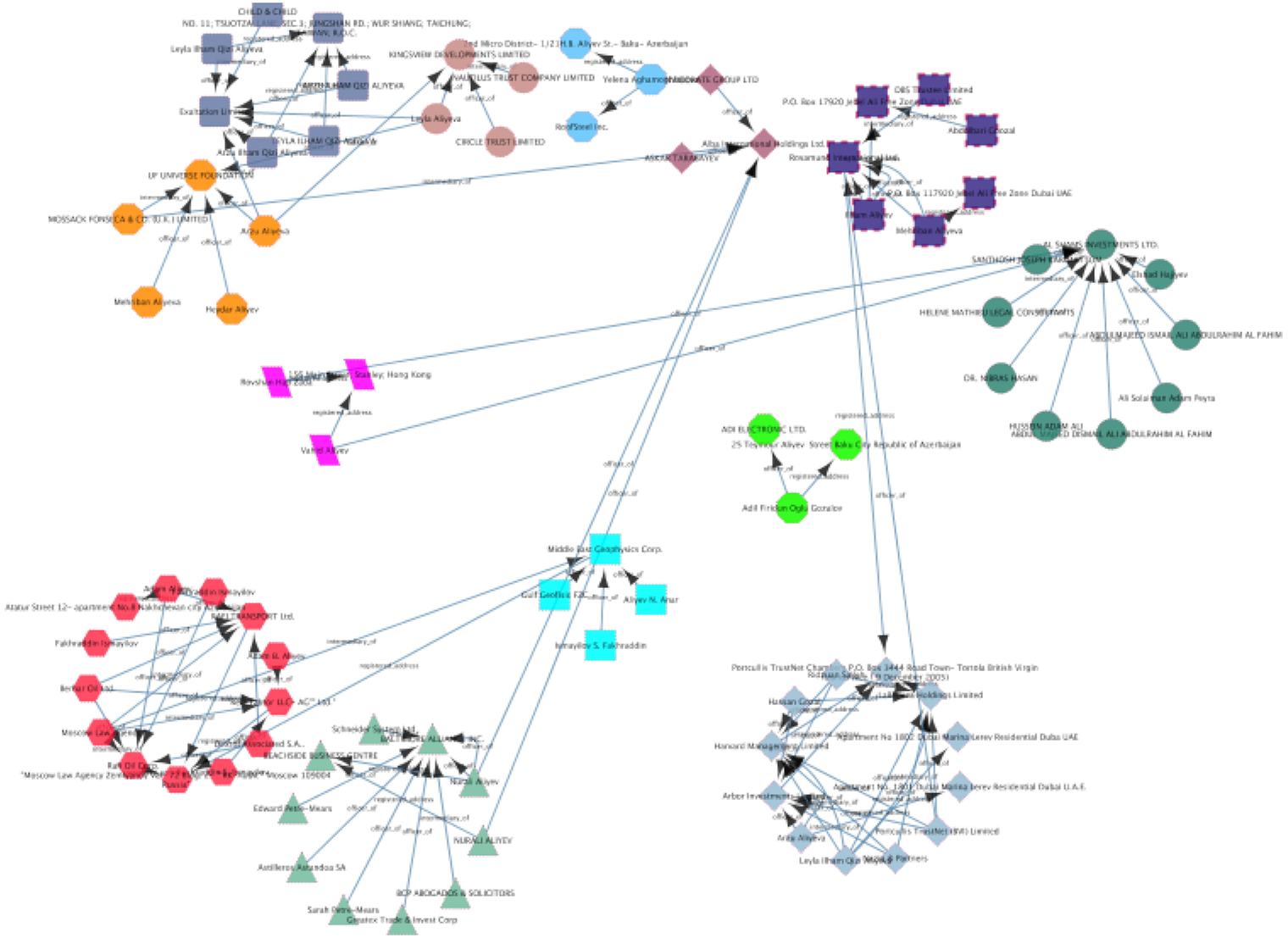
Prefuse Force Directed Layout



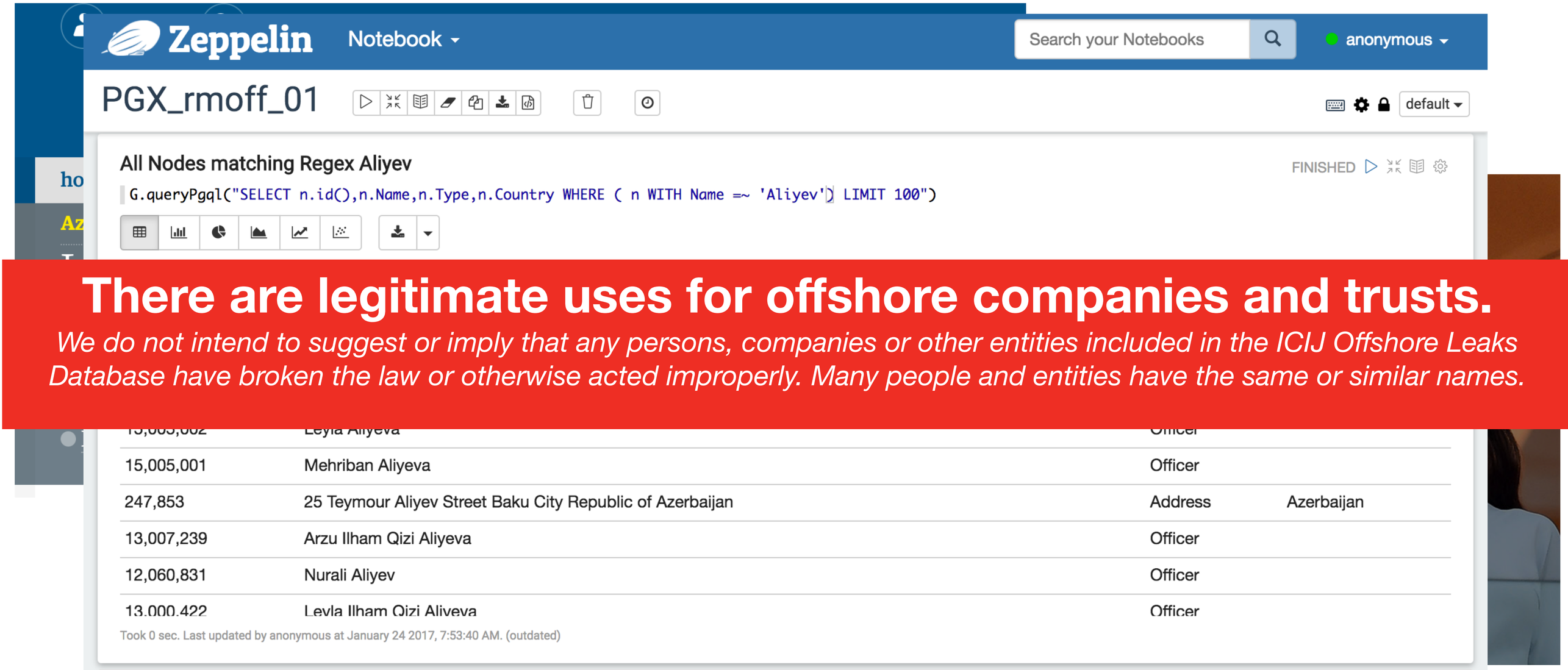
Community Detection



Community Detection



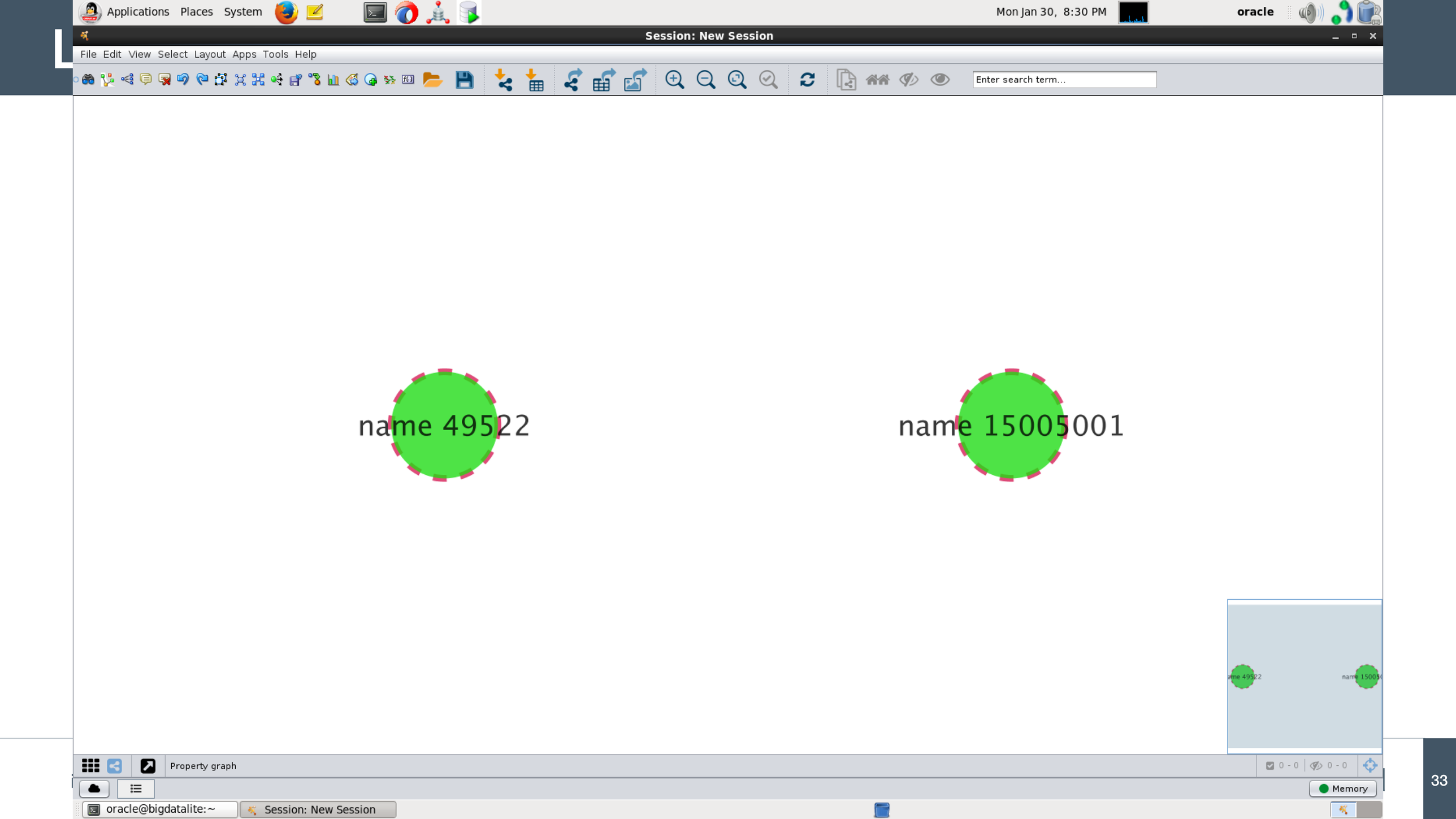
Graph Beats Relational for Exploring Relationships!



There are legitimate uses for offshore companies and trusts.

We do not intend to suggest or imply that any persons, companies or other entities included in the ICIJ Offshore Leaks Database have broken the law or otherwise acted improperly. Many people and entities have the same or similar names.

https://panamapapers.icij.org/20160404-azerbaijan-hidden-wealth.html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Property graph
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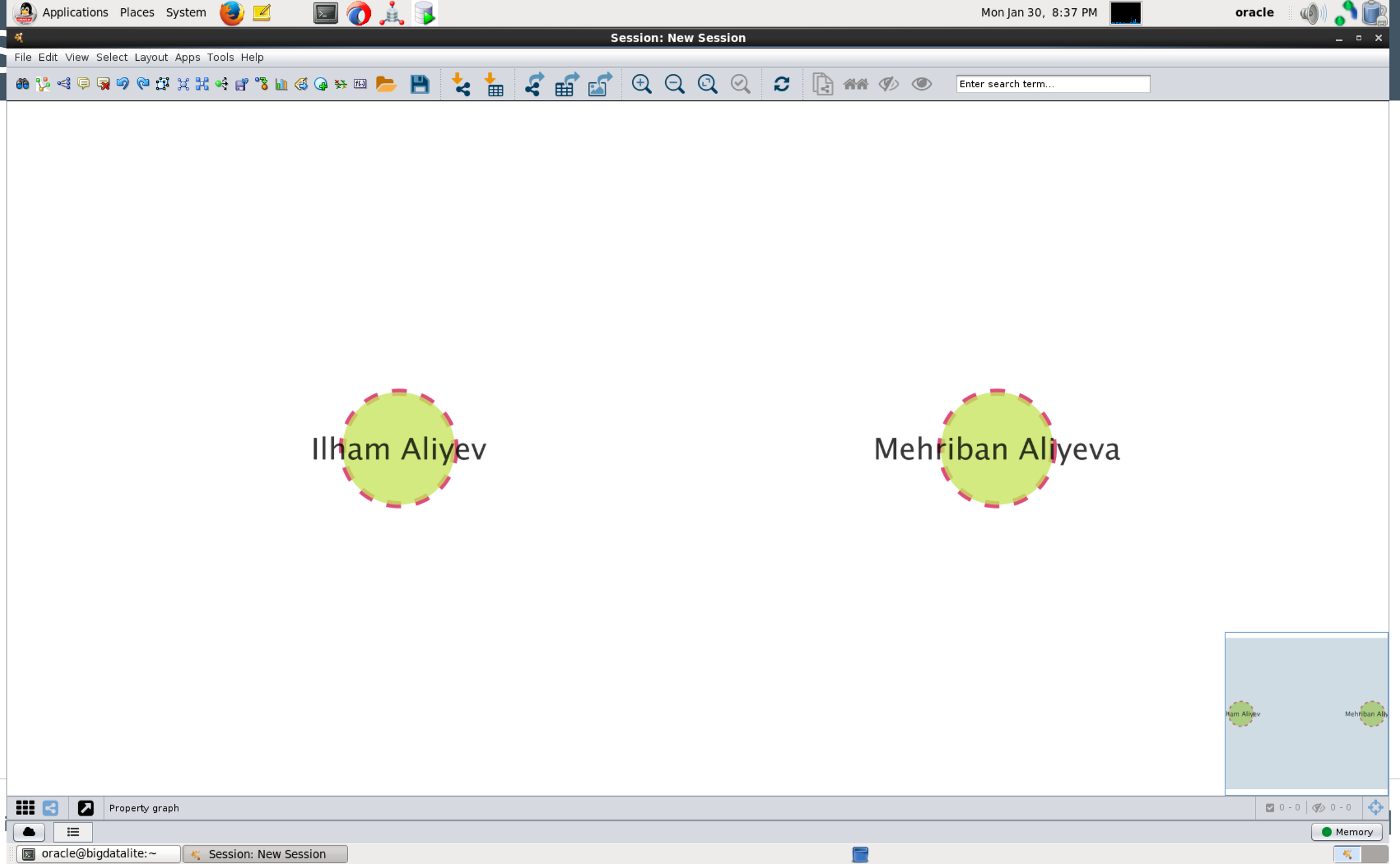
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Mehriban Aliyeva
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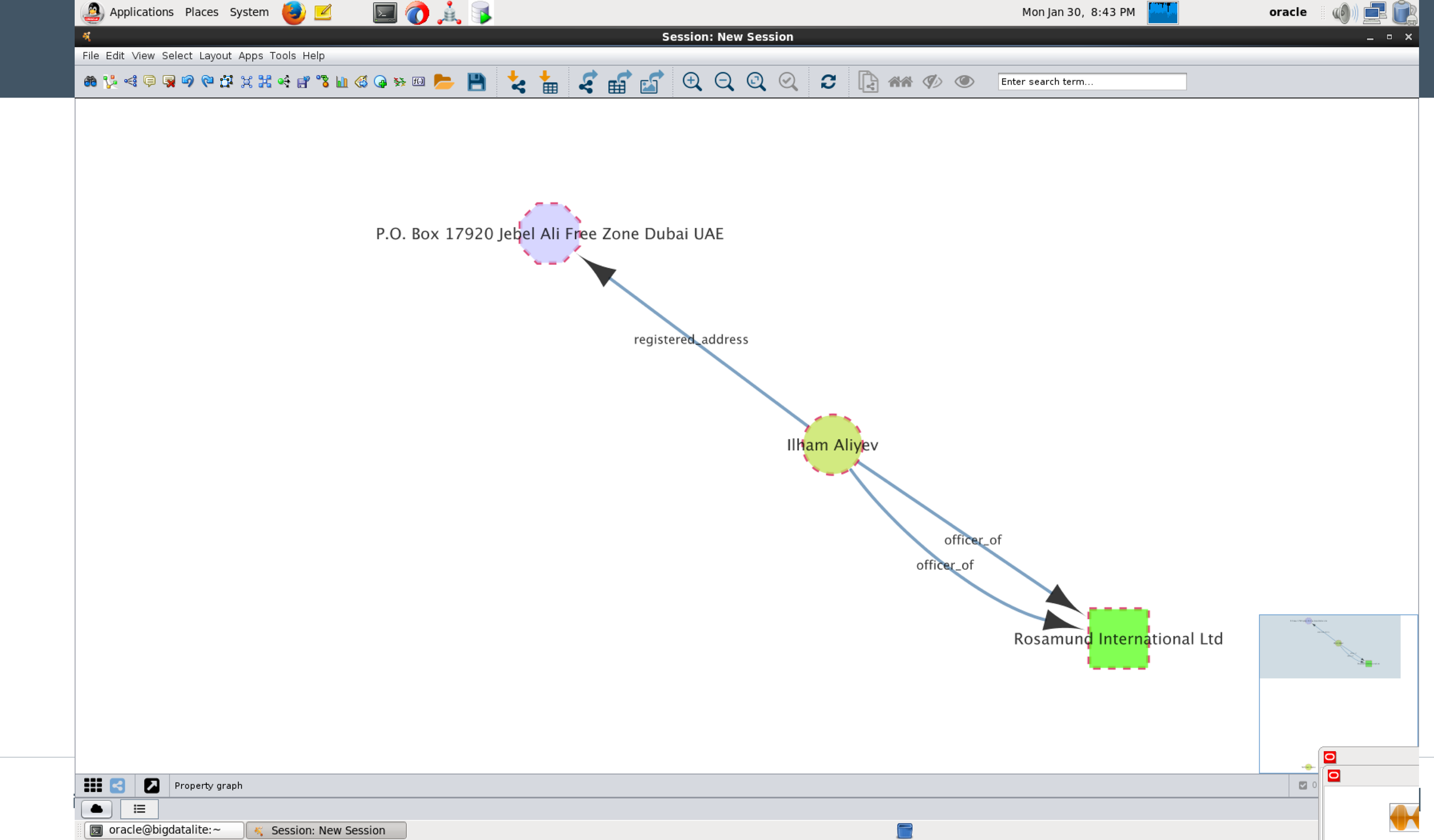
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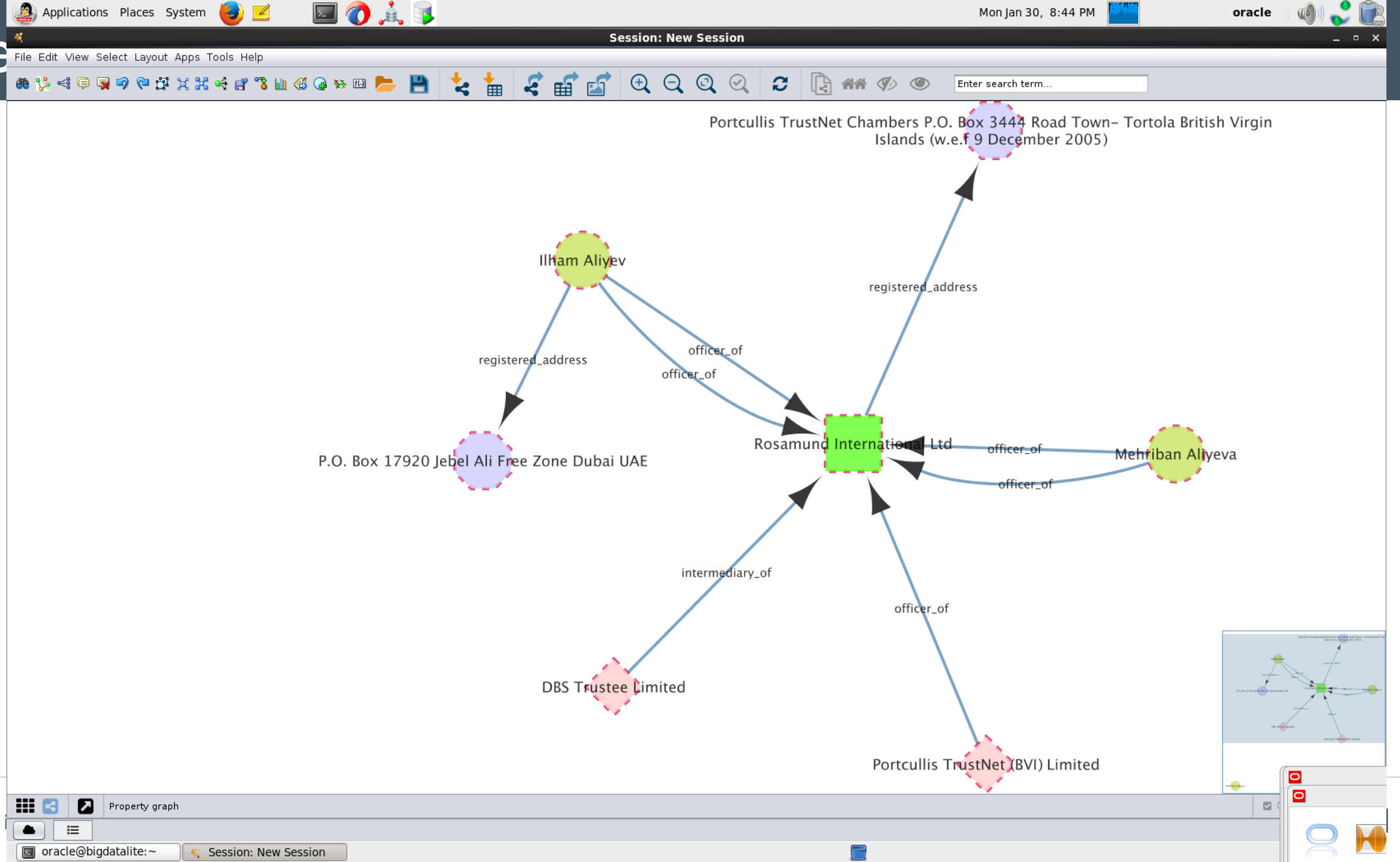
Enter search term...
P.O. Box 17920 Jebel Ali Free Zone Dubai UAE
registered_address
Ilham Aliyev
officer_of
officer_of
Rosamund International Ltd
Property graph
oracle@bigdatalite:~
Session: New Session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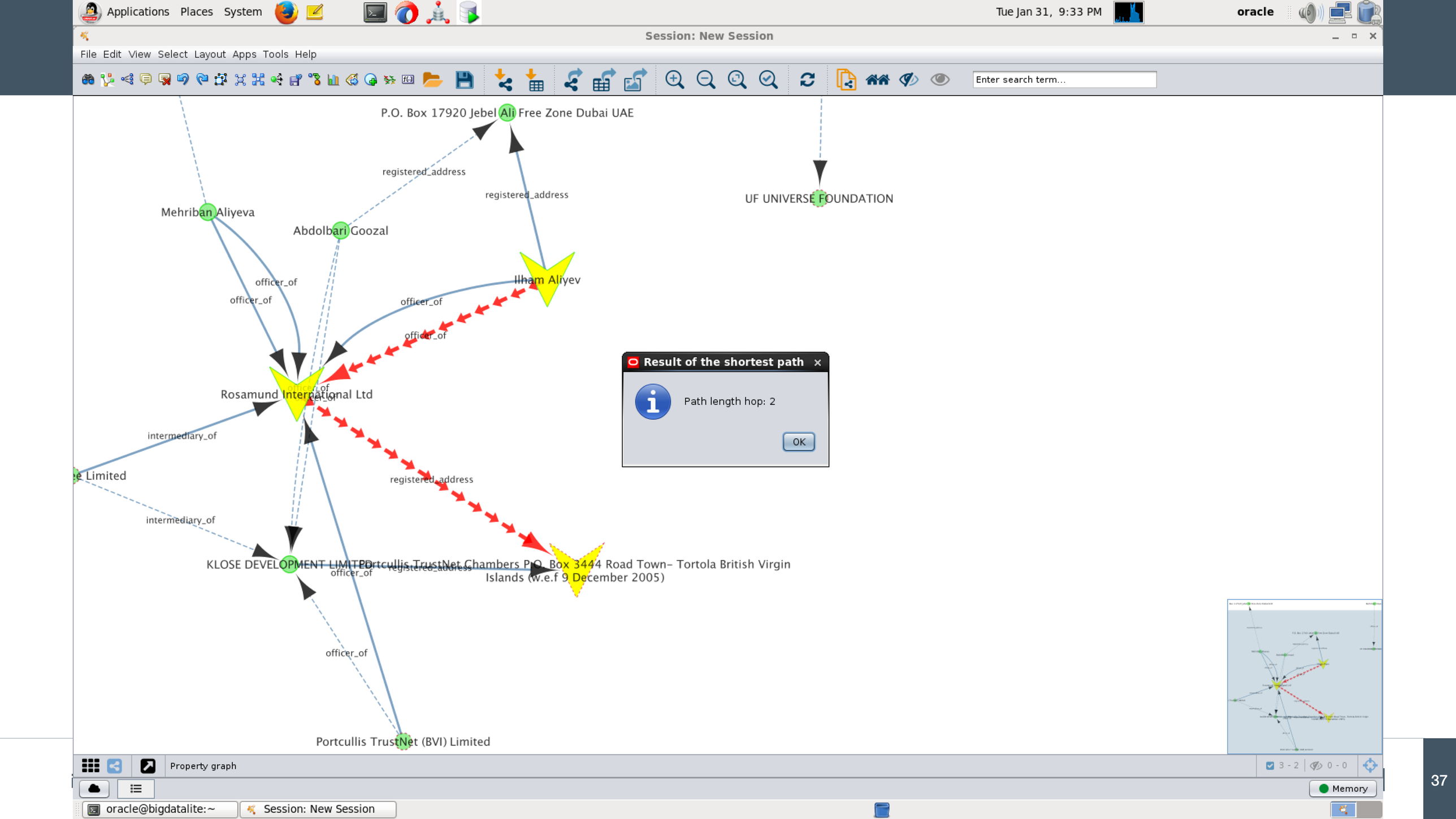
Ilham Aliyev
registered_address
officer_of
officer_of
registered_address
P.O. Box 17920 Jebel Ali Free Zone Dubai UAE
Rosamund International Ltd
officer_of
officer_of
Mehriban Aliyeva
intermediary_of
officer_of
DBS Trustee Limited
Portcullis TrustNet (BVI) Limited
Property graph
oracle@bigdatalite:~
Session: New Session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P.O. Box 17920 Jebel Ali Free Zone Dubai UAE
registered_address
registered_address
UF UNIVERSE FOUNDATION
Mehriban Aliyeva
Abdolbari Goozal
Ilham Aliyev
officer_of
officer_of
officer_of
officer_of
officer_of
Rosamund International Ltd
intermediary_of
Limited
registered_address
intermediary_of
KLOSE DEVELOPMENT LIMITED
officer_of
registered_address
Portcullis TrustNet Chambers P.O. Box 3444 Road Town– Tortola British Virgin Islands (w.e.f 9 December 2005)
officer_of
Portcullis TrustNet (BVI) Limited
Result of the shortest path
Path length hop: 2
OK
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3 - 2
0 - 0
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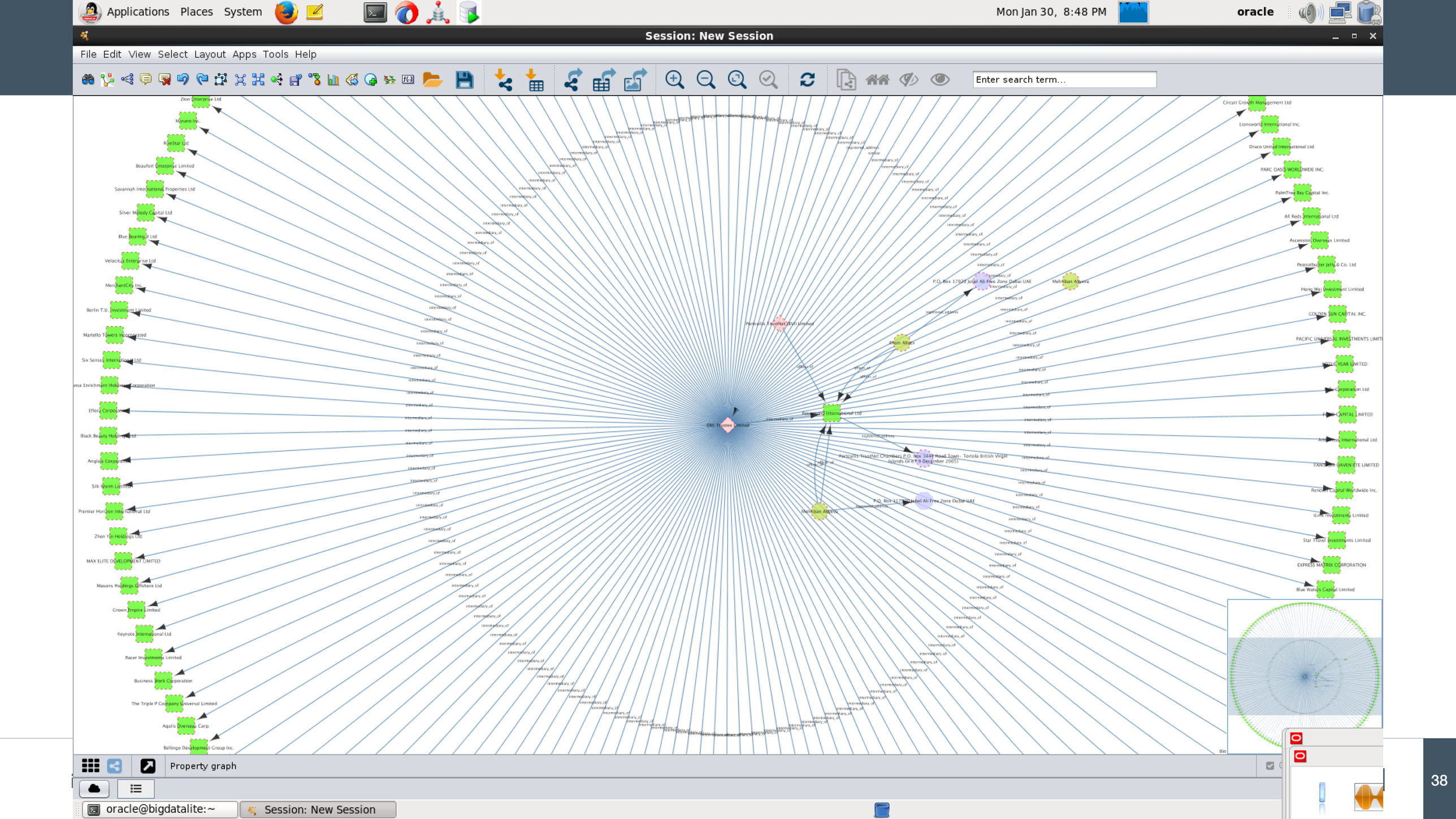
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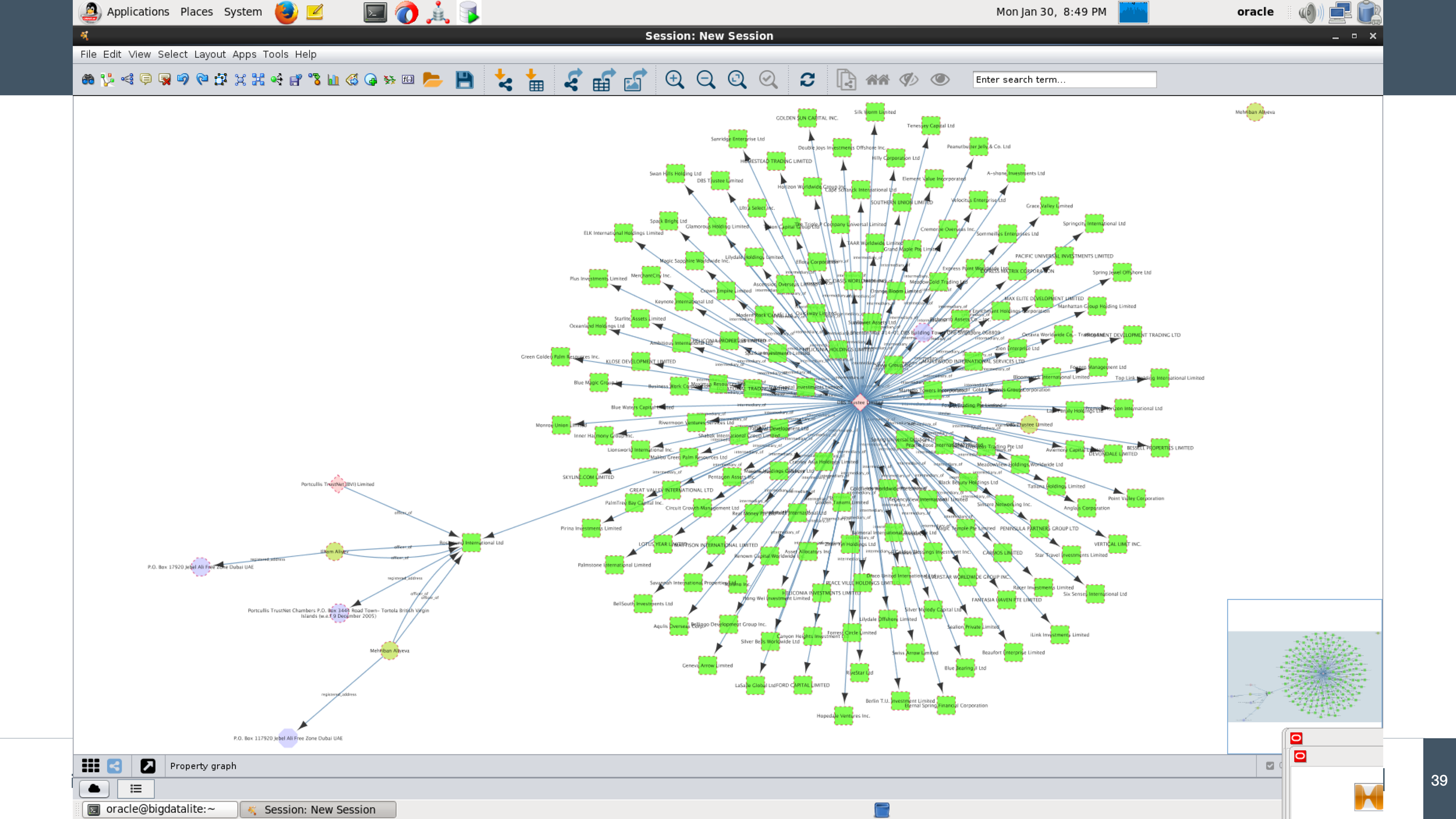
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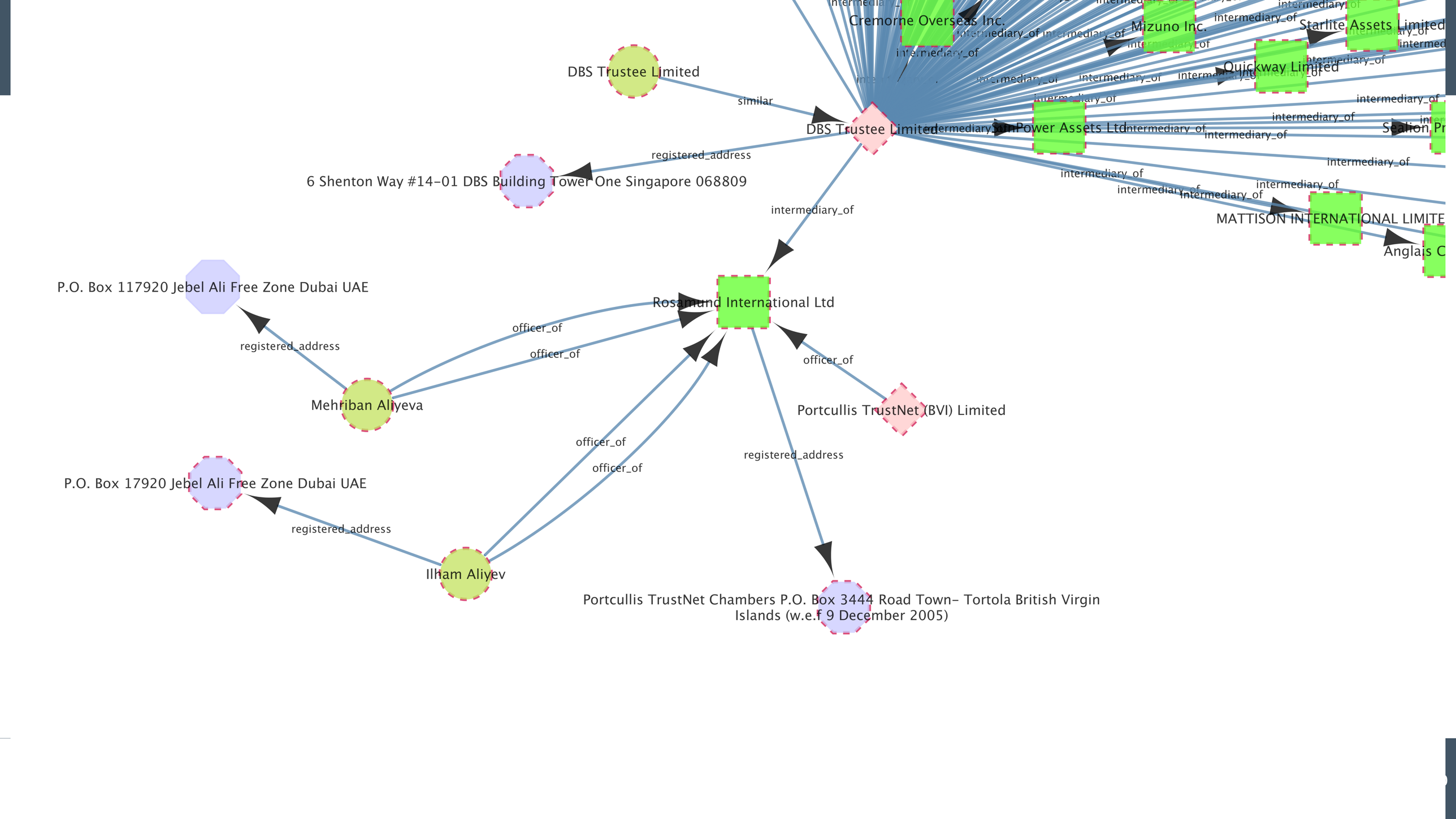
DBS Trustee Limited
similar
DBS Trustee Limited
registered_address
6 Shenton Way #14-01 DBS Building Tower One Singapore 068809
intermediary_of
Cremorne Overseas Inc.
Mizuno Inc.
Starlite Assets Limited
Quickway Limited
SunPower Assets Ltd
MATTISON INTERNATIONAL LIMITE
Anglais C
Rosamund International Ltd
P.O. Box 117920 Jebel Ali Free Zone Dubai UAE
registered_address
officer_of
officer_of
Mehriban Aliyeva
officer_of
Portcullis TrustNet (BVI) Limited
P.O. Box 17920 Jebel Ali Free Zone Dubai UAE
registered_address
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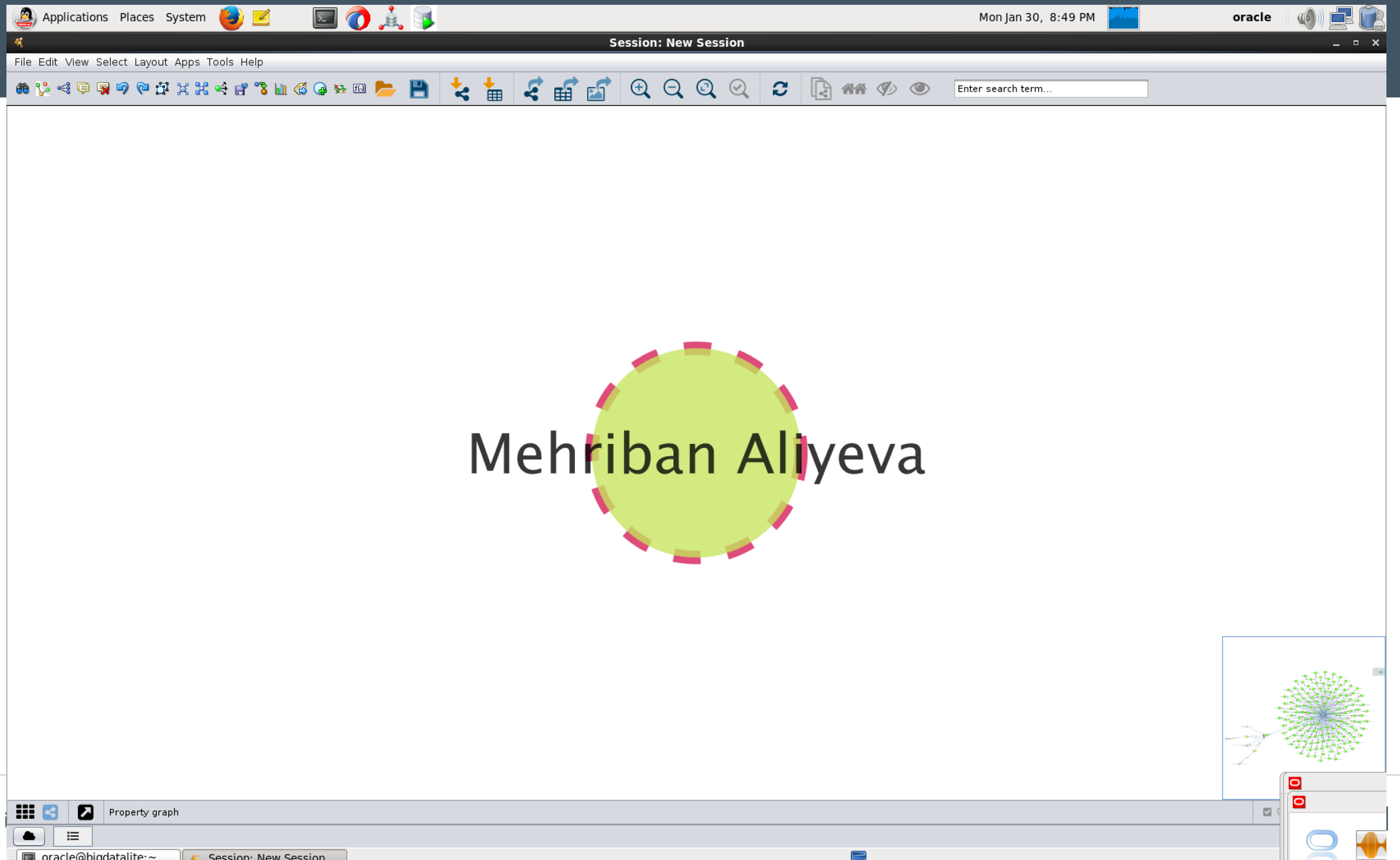
officer_of
Ilham Aliyev
registered_address
Portcullis TrustNet Chambers P.O. Box 3444 Road Town- Tortola British Virgin Islands (w.e.f 9 December 2005)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Enter search term...
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Property graph
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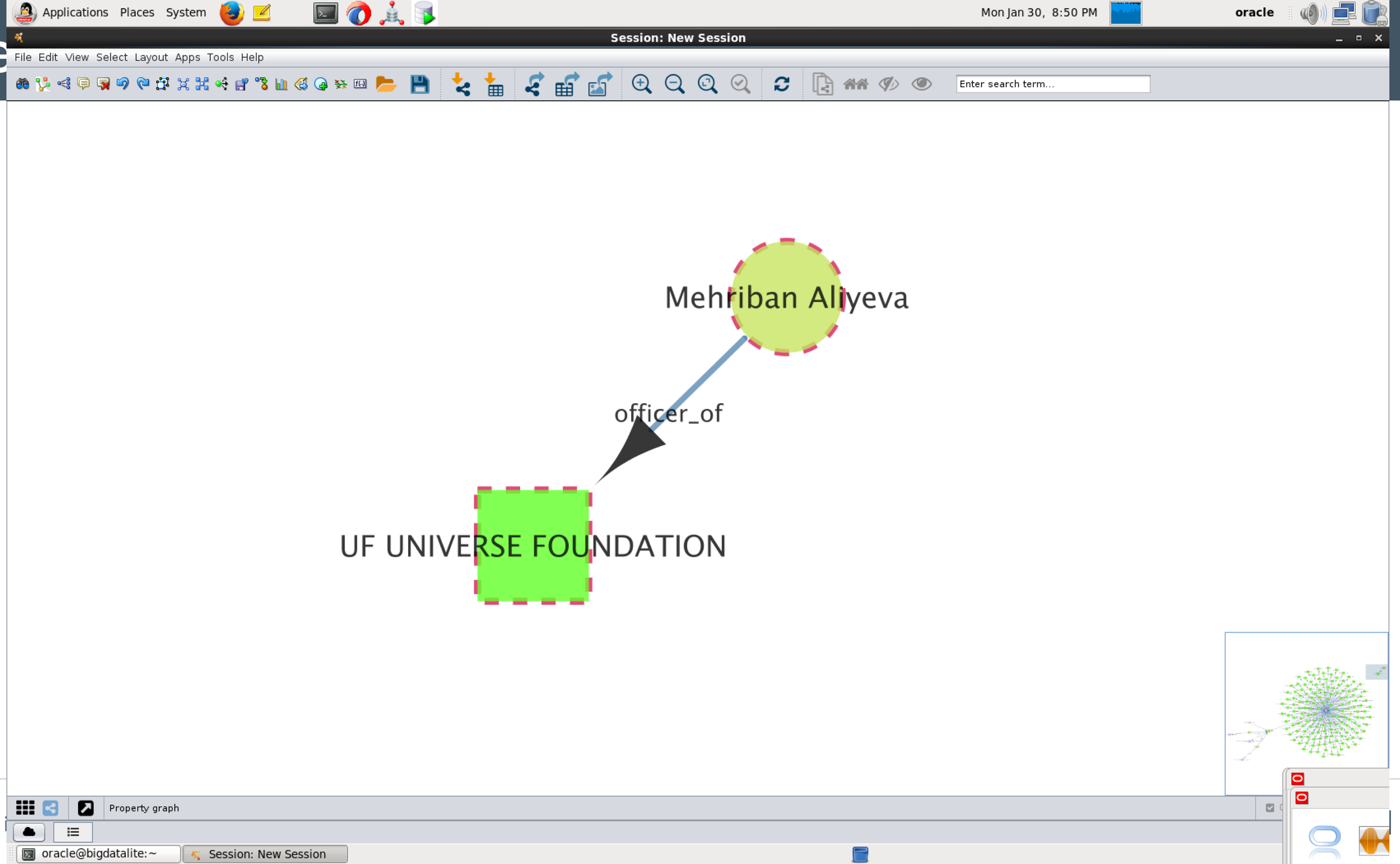
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Mehriban Aliyeva
officer_of
UF UNIVERSE FOUNDATION
Property graph
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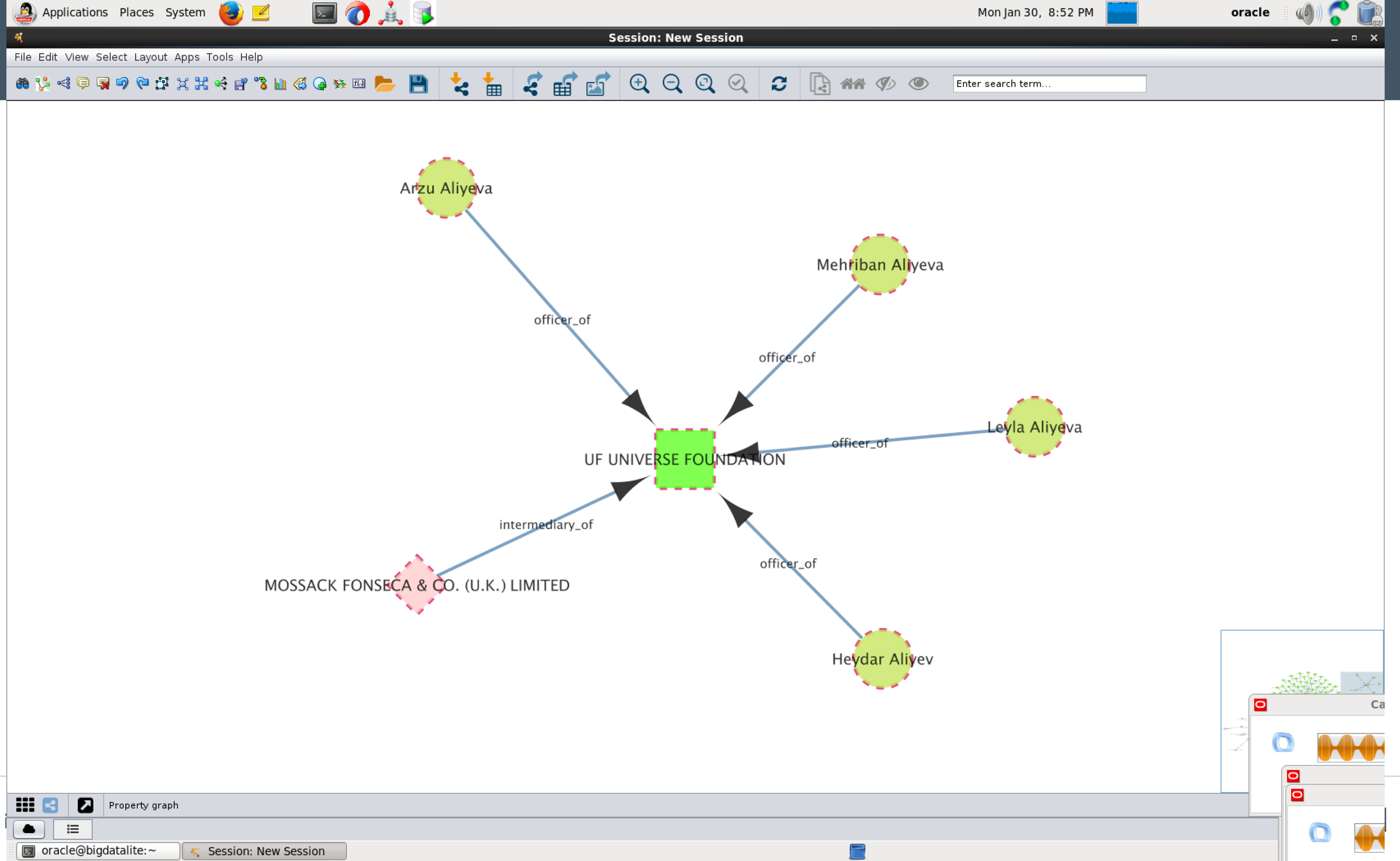
Session: New Session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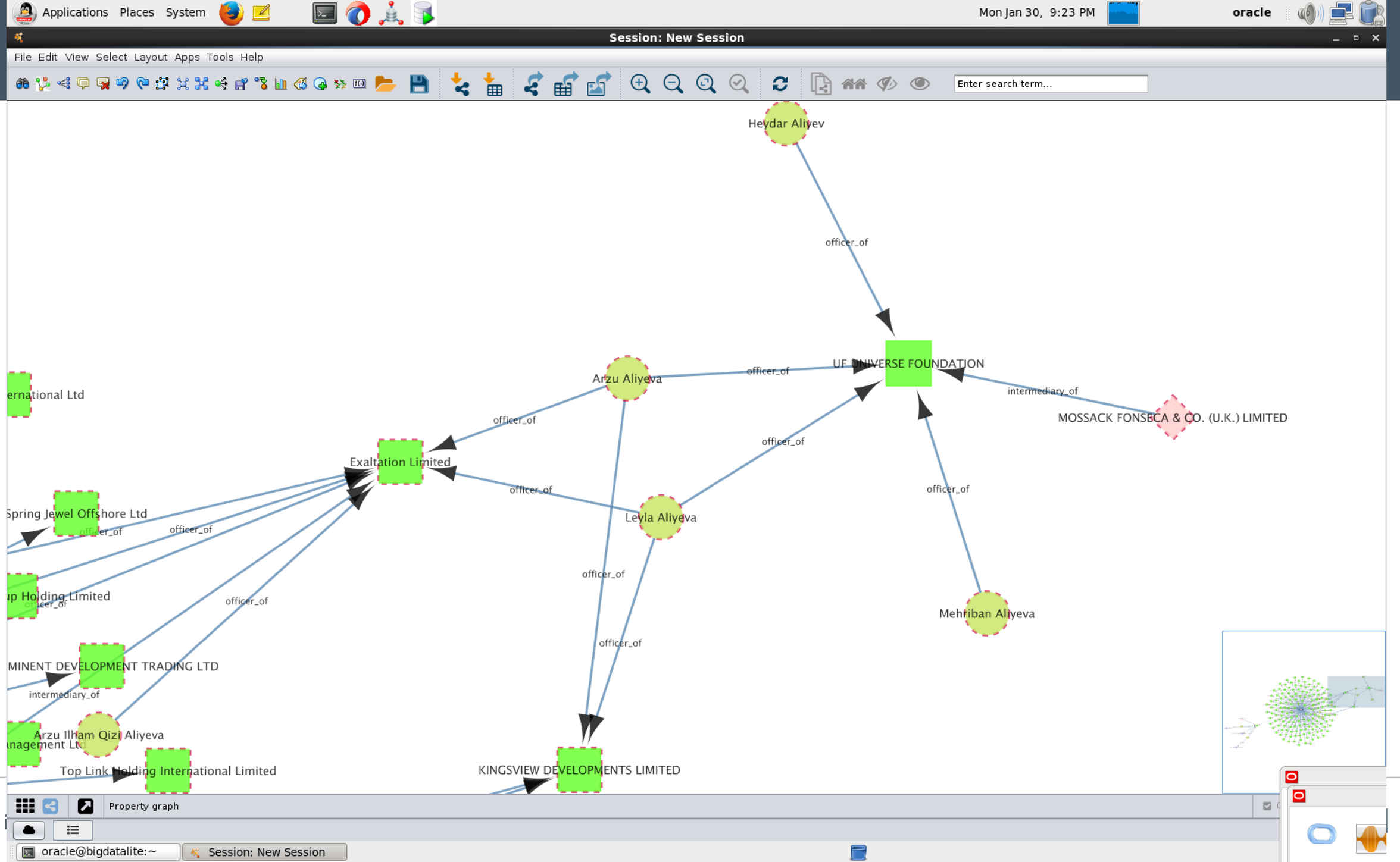
Arzu Aliyeva
Mehriban Aliyeva
officer_of
officer_of
Leyla Aliyeva
officer_of
UF UNIVERSE FOUNDATION
intermediary_of
officer_of
MOSSACK FONSECA & CO. (U.K.) LIMITED
Heydar Aliyev
Property graph
oracle@bigdatalite:~
Session: New Session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UF UNIVERSE FOUNDATION
intermediary_of
MOSSACK FONSECA & CO. (U.K.) LIMITED
Arzu Aliyeva
officer_of
Exaltation Limited
officer_of
Leyla Aliyeva
officer_of
Mehriban Aliyeva
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ernational Ltd
Spring Jewel Offshore Ltd
up Holding Limited
MINENT DEVELOPMENT TRADING LTD
intermediary_of
Arzu Ilham Qizi Aliyeva
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Top Link Holding International Limited
KINGSVIEW DEVELOPMENTS LIMITED
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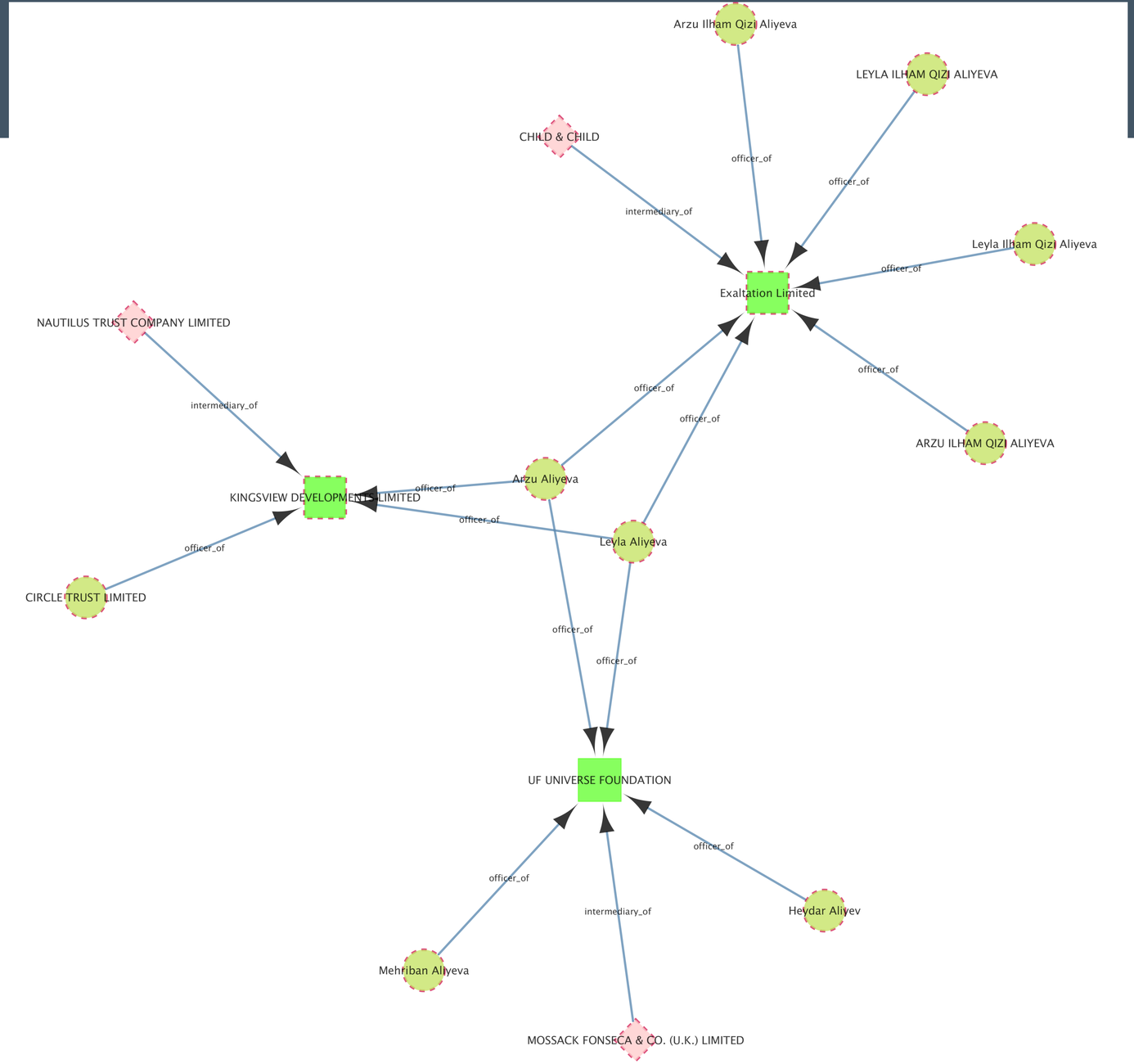
Session: New Session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LEYLA ILHAM QIZI ALIYEVA
CHILD & CHILD
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intermediary_of
Leyla Ilham Qizi Aliyeva
officer_of
Exaltation Limited
officer_of
NAUTILUS TRUST COMPANY LIMITED
officer_of
officer_of
intermediary_of
ARZU ILHAM QIZI ALIYEVA
Arzu Aliyeva
officer_of
KINGSVIEW DEVELOPMENTS LIMITED
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Leyla Aliyeva
officer_of
CIRCLE TRUST LIMITED
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officer_of
UF UNIVERSE FOUNDATION
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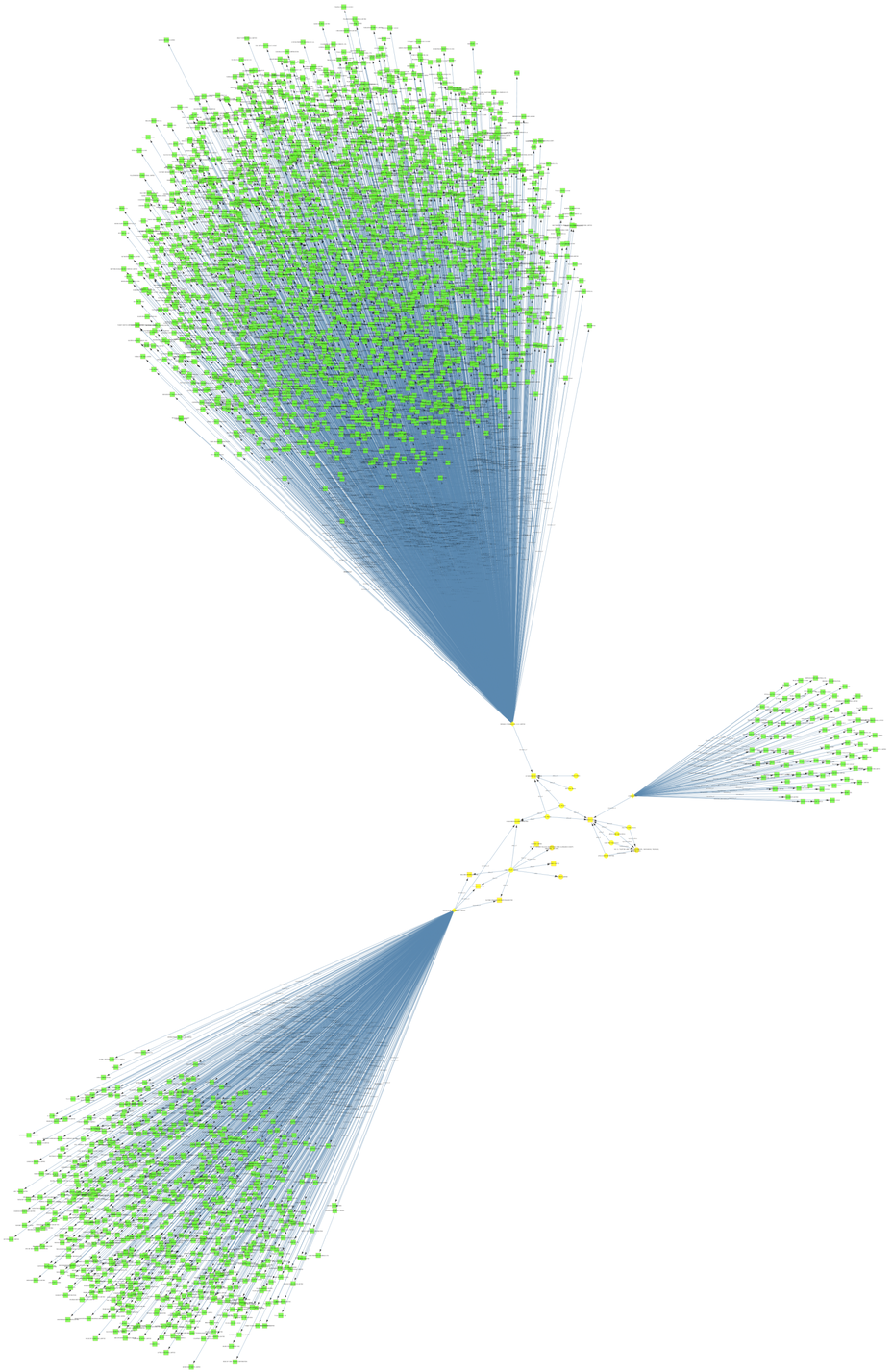
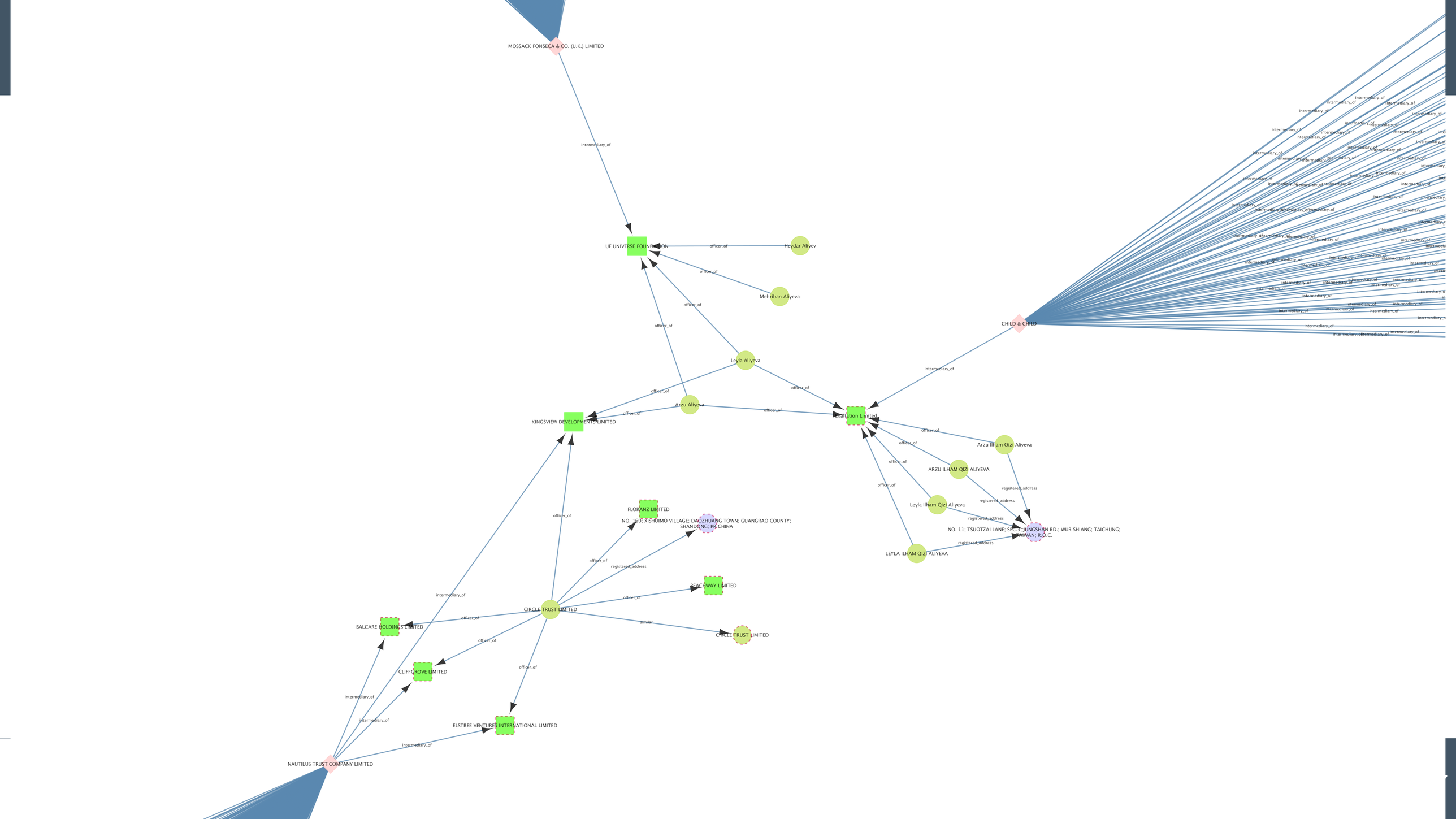
officer_of
intermediary_of
Heydar Aliyev
Mehriban Aliyeva
MOSSACK FONSECA & CO. (U.K.) LIMITED

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officer_of
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officer_of
Mehriban Aliyeva
officer_of
officer_of
Leyla Aliyeva
officer_of
officer_of
Arzu Aliyeva
officer_of
officer_of
KINGSVIEW DEVELOPMENTS LIMITED
CHILD & CHILD
intermediary_of
Excalibur Limited
officer_of
officer_of
officer_of
officer_of
Arzu Ilham Qizi Aliyeva
ARZU ILHAM QIZI ALIYEVA
Leyla Ilham Qizi Aliyeva
LEYLA ILHAM QIZI ALIYEVA
registered_address
registered_address
registered_address
registered_address
NO. 11; TSUOTZAI LANE; SECT. JUNGSHAN RD.; WUR SHIANG; TAICHUNG; TAIWAN; R.O.C.
officer_of
officer_of
officer_of
FLORANZ LIMITED
NO. 160; XISHUIMO VILLAGE; DAOZHUANG TOWN; GUANGRAO COUNTY; SHANDONG; PR CHINA
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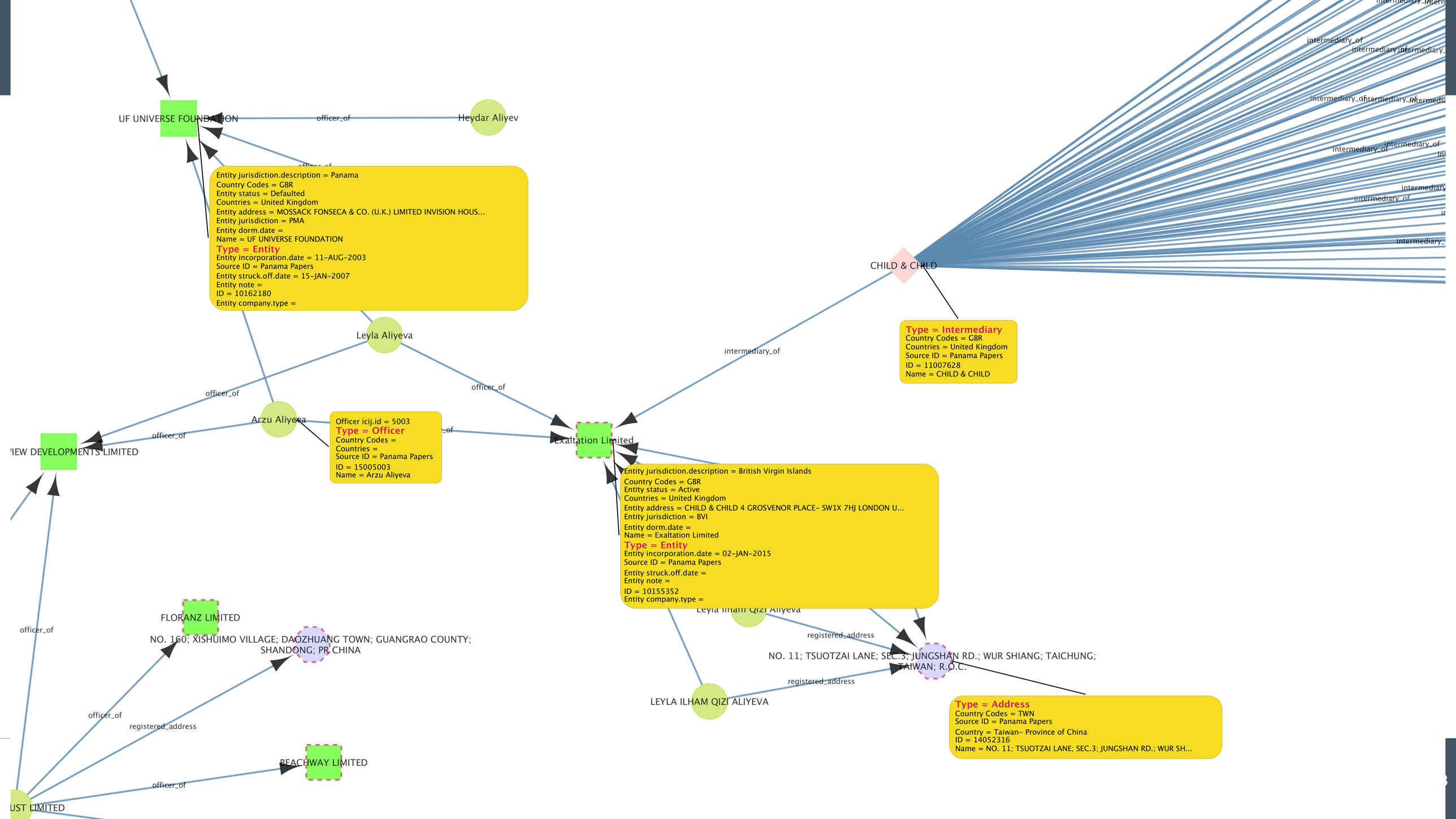
officer_of
officer_of
CIRCLE TRUST LIMITED
REACHWAY LIMITED
officer_of
similar
CIRCLE TRUST LIMITED
officer_of
BALCARE HOLDINGS LIMITED
officer_of
officer_of
CLIFFGROVE LIMITED
officer_of
ELSTREE VENTURES INTERNATIONAL LIMITED
intermediary_of
intermediary_of
intermediary_of
intermediary_of
NAUTILUS TRUST COMPANY LIMITED
intermediary_of


UF UNIVERSE FOUNDATION
officer_of
Heydar Aliyev
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Country Codes = GBR
Entity status = Defaulted
Countries = United Kingdom
Entity address = MOSSACK FONSECA & CO. (U.K.) LIMITED INVISION HOUS...
Entity jurisdiction = PMA
Entity dorm.date =
Name = UF UNIVERSE FOUNDATION
Type = Entity
Entity incorporation.date = 11-AUG-2003
Source ID = Panama Papers
Entity struck.off.date = 15-JAN-2007
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Leyla Aliyeva
officer_of
officer_of
Arzu Aliyeva
officer_of
'IEW DEVELOPMENTS LIMITED
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Name = Arzu Aliyeva
Exaltation Limited
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registered_address
BEACHWAY LIMITED
officer_of
UST LIMITED
Leyla Ilham Qizi Aliyeva
registered_address
NO. 11; TSUOTZAI LANE; SEC.3; JUNGSHAN RD.; WUR SHIANG; TAICHUNG; TAIWAN; R.O.C.
registered_address
LEYLA ILHAM QIZI ALIYEVA
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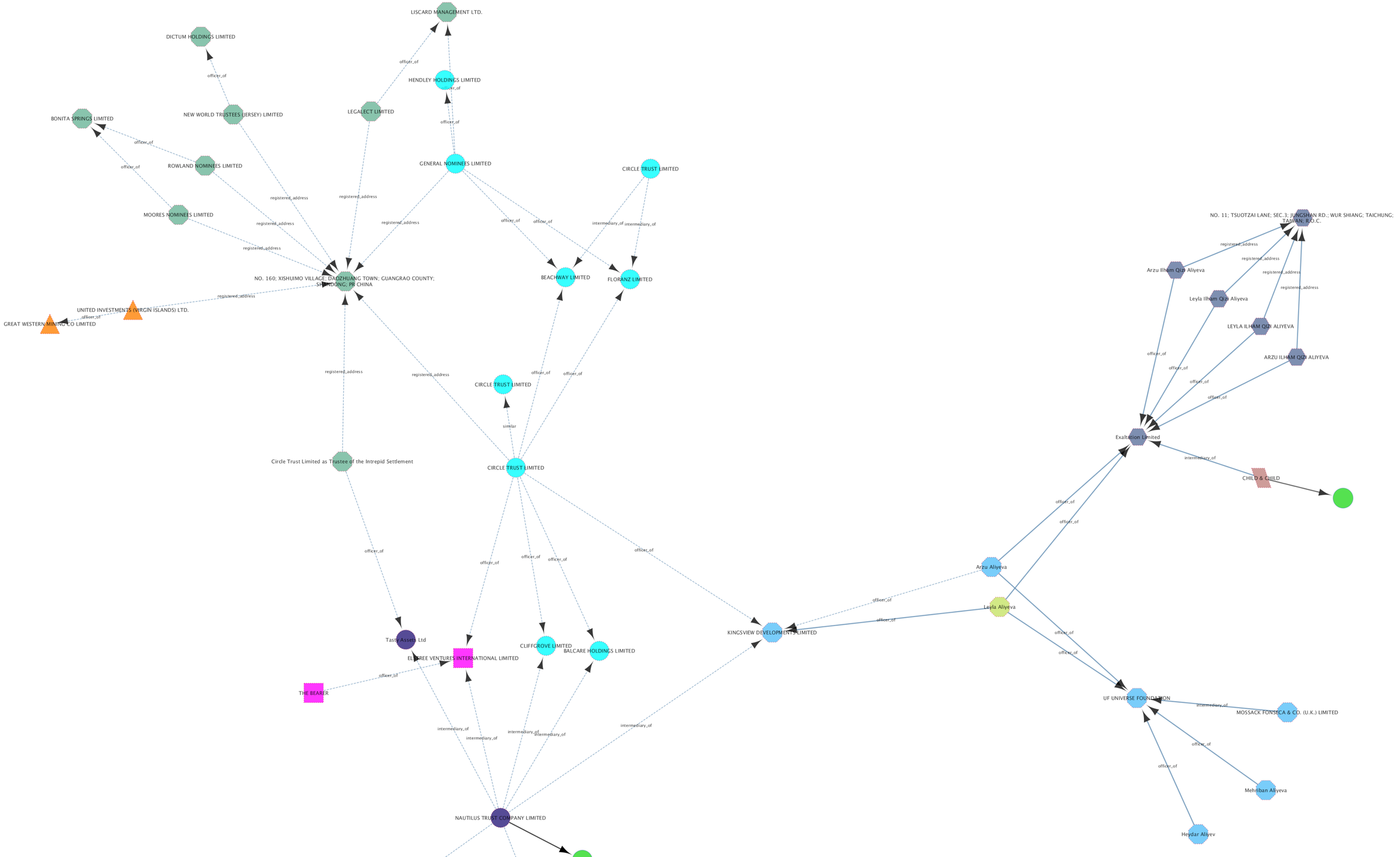
LISCARD MANAGEMENT LTD.
DICTUM HOLDINGS LIMITED
HENDLEY HOLDINGS LIMITED
NEW WORLD TRUSTEES (JERSEY) LIMITED
LEGALECT LIMITED
BONITA SPRINGS LIMITED
ROWLAND NOMINEES LIMITED
GENERAL NOMINEES LIMITED
CIRCLE TRUST LIMITED
MOORES NOMINEES LIMITED
NO. 160; XISHUIMO VILLAGE; DAOZHUANG TOWN; GUANGRAO COUNTY; SHANDONG; PR CHINA
BEACHWAY LIMITED
FLORANZ LIMITED
UNITED INVESTMENTS (VIRGIN ISLANDS) LTD.
GREAT WESTERN MINING CO LIMITED
CIRCLE TRUST LIMITED
Circle Trust Limited as Trustee of the Intrepid Settlement
CIRCLE TRUST LIMITED
Tasty Assets Ltd
ELDEREE VENTURES INTERNATIONAL LIMITED
CLIFFGROVE LIMITED
BALCARE HOLDINGS LIMITED
THE BEARER
NAUTILUS TRUST COMPANY LIMITED
KINGSVIEW DEVELOPMENTS LIMITED
Arzu Aliyeva
Leyla Aliyeva
NO. 11; TSUOTZAI LANE; SEC.3; JUNGSHAN RD.; WUR SHIANG; TAICHUNG; TAIWAN; R.O.C.
Arzu Ilham Qizi Aliyeva
Leyla Ilham Qizi Aliyeva
LEYLA ILHAM QIZI ALIYEVA
ARZU ILHAM QIZI ALIYEVA
Exaltation Limited
CHILD & CHILD
UF UNIVERSE FOUNDATION
MOSSACK FONSECA & CO. (U.K.) LIMITED
Mehriban Aliyeva
Heydar Aliyev
officer_of
registered_address
intermediary_of
similar

#EOF

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web

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